THE FUTURE OF INTERACTIVE ENTERTAINMENT

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EDGE

DREAMCAST ■ PLAYSTATION ■ PS2 ■ N64 ■ PC ■ COIN-OP ■ ONLINE

INFOGRAMES PRESENTS

ALONE IN THE DARK

THE NEW NIGHTMARE

PREVIEWED TEKKEN TAG TOURNAMENT • SYPHON FILTER 2 AND CRAZY TAXI

REVIEWED GRAN TURISMO 2 • VIRTUAL ON ORATORIO TANGRAM AND MESSIAH

FEATURING THE GAMES OF THE YEAR AND TRUE TALES OF DEVELOPMENT HELL



The French development community isn't renowned for grabbing the videogame world by the scruff of the neck and shaking it until something interesting falls out of its pockets. But that's exactly what Infogrames did in 1991, happening across an entirely new genre with the original *Alone in the Dark*.

It wasn't until Japanese creatives at Capcom's Osaka HQ encountered the series – in its 3DO iteration, if legend is to be believed – that the genre earned itself a name: survival horror. It's no secret that the company was in dire need of inspiration at this point – 2D *Mega Man* titles and *Street Fighter* variants were beginning to grate – and the company's fortunes have since been built around what has become a rock-solid cornerstone.

So how did this unusual little adventure concept bloom to become a multimillion-selling phenomenon? Simply because everyone loves a good scare, something to bring out man's inherent flight-or-fight response. Survival is the primal driving force behind playing videogames, whether it's *Tetris* or *Dino Crisis*, but the horror part of the equation, the punctuation of the action with interactive pokes in the eye, was the gold dust.

But now that Japanese designers have taken the genre and twisted, explored and warped it, how can its pioneer come back? It is a task of horrific proportions. The developer tells all on p40.

Edge recounts some other horror stories in detail this month (see p62) – having read them, you may never look at videogames the same way again. To everyone creating games out there, please don't go having nightmares.



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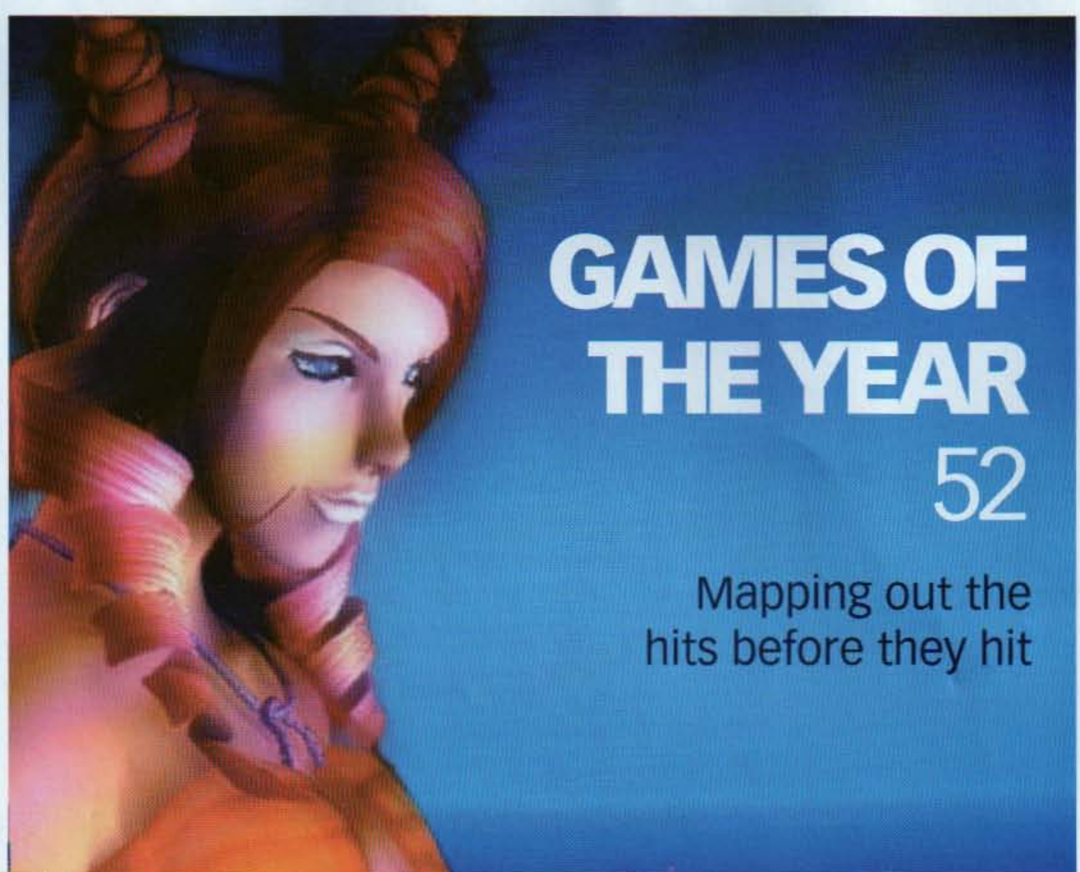


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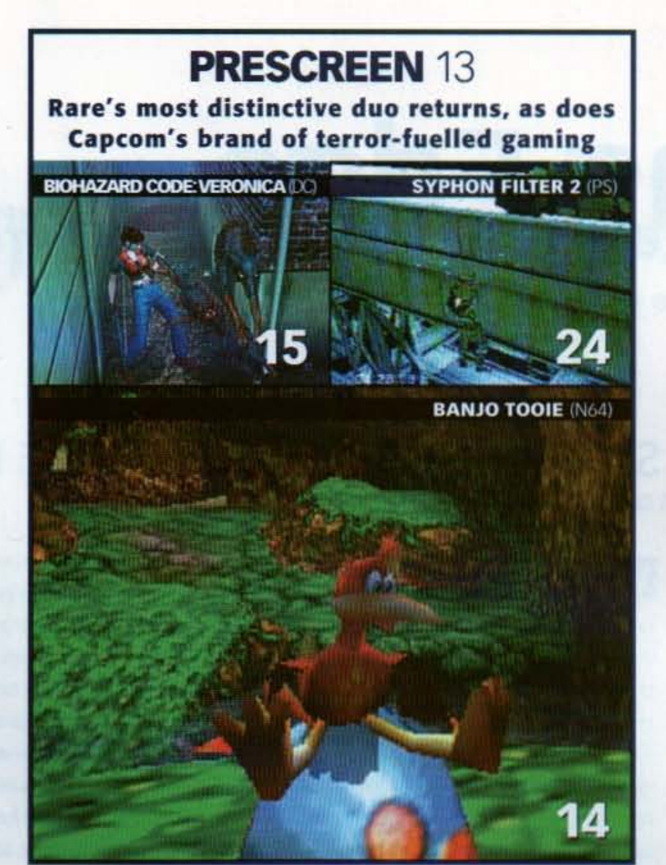
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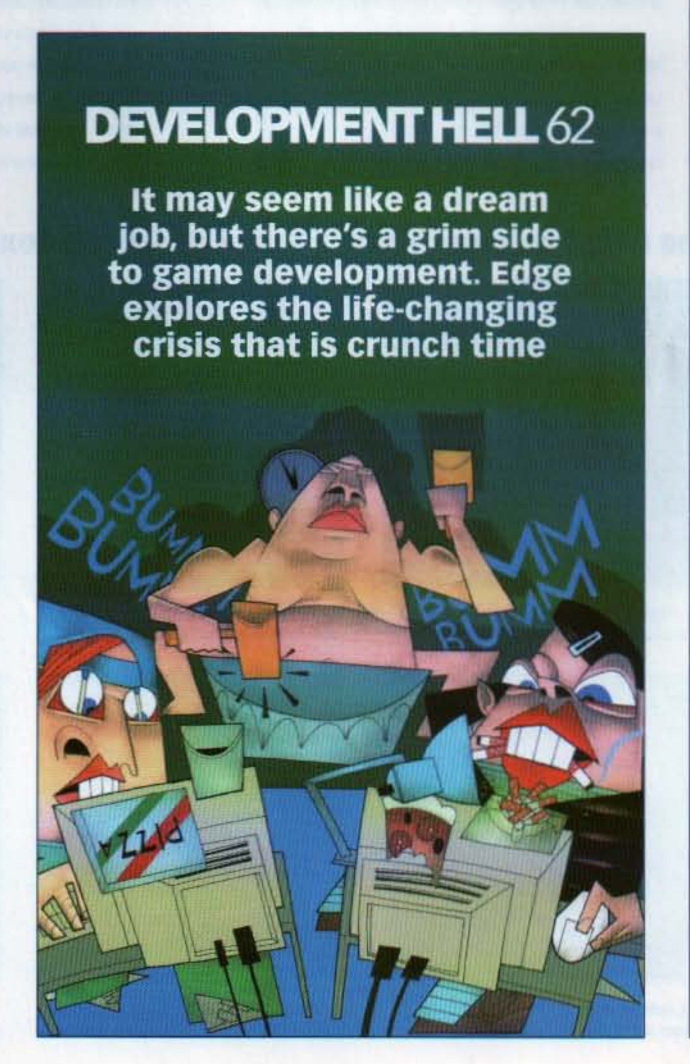
PRESCREEN 13

Rare's most distinctive duo returns, as does Capcom's brand of terror-fuelled gaming



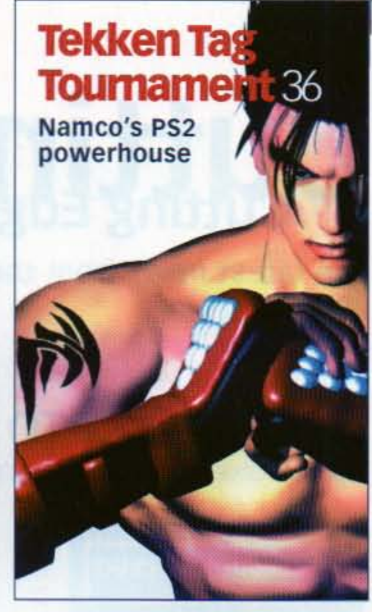
DEVELOPMENT HELL 62

It may seem like a dream job, but there's a grim side to game development. Edge explores the life-changing crisis that is crunch time



Tekken Tag Tournament 36

Namco's PS2 powerhouse



Cutting Edge

The latest news from the world of interactive entertainment

DREAMCAST TO SPEARHEAD JAPAN'S ONLINE RUSH

Japanese Government choses Sega's console as standard for domestic set-top box

Lockout unlocked

It's taken five months but US importer National Console Survey finally thinks Dreamcast's localisation lockout has been cracked. It is installing what it is calling 'a stable and reliable mod chip' for US users at $50. NCS says it has tested every game released in Japan and the US without any problems.



With Japan lagging behind the west in terms of use of the Internet and multimedia, its Government is keen to invest in ambitious projects to increase the penetration of the WWW. One key initiative set up by the technology and telecommunications ministry (MITI) has seen Dreamcast selected as the national standard to catapult Japan into the online era. The MITI has created a specification for a Dreamcast-based set-top box and is in the process of selecting a number of electronics giants to manufacture their own variants. Hitachi, Toshiba, Sega's holding company CSK, and NEC are amongst those who have shown interest.

As with Dreamcast, the heart of the set-top box will be NEC's SH-4 CPU combined with a PowerVR 2DC graphics chipset, although there are rumours that the unit may use a more powerful graphics chip instead, the so-called Dreamcast 2 upgrade (**E**77). It will also run on Microsoft's latest *WinCE 2.0* operating system. Other accessories already announced by Sega, such as a Zip drive, digital camera, cable modem and microphone will be supported. It is thought that the unit will be able to play DVDs too, although it is not known whether this will be featured internally or as a separate unit.

There will also be additional features. In line with the box's living room setting, it will support remote-control use and ship with an infrared keyboard for easy Net browsing. The microphone functionality will be enhanced so that the unit can be voice activated, and it will also boast two USB ports to accommodate further upgrades.

Further details will be announced shortly, such as the name of the new box, and specific release and pricing details. It is known, however, that the product will ship during the summer, and retail at around ¥30,000 (approx. £174). The price of a Japanese Dreamcast is ¥19,900 (£114).

The ingredients list of the new Dreamcast-based Japanese set-top box



Take a Dreamcast console (with or without graphics upgrade), bolt on a Zip drive...



... then add a DVD drive so you can watch movies and listen to tunes



Internet access is fast thanks to a high-speed cable modem connection...



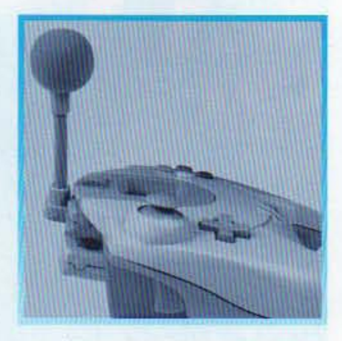
... and browsing is made straightforward with a wireless infrared keyboard...



... or use a remote to channel surf through hundreds of interactive TV services



A webcam is provided if you want to use your set-top box as a videophone...



... and it is even possible to voice activate the unit with the help of a microphone...



... and with two USB ports for upgrades, a wide range of future add-ons awaits

FINAL TRIUMPH FOR **PLAYSTATION PRESENCE**

The last seasonal boost for PlayStation proves to be great news for Sony, EA and Eidos

TOP TEN OF 1999

The top ten all-formats sales chart for the entire year makes interesting reading:

Title	Publisher
1. *FIFA 2000*	Electronic Arts
2. *Driver*	GT Interactive
3. *Metal Gear Solid*	Konami
4. *Gran Turismo*	SCEE
5. *Tomb Raider: The Last Revelation*	Eidos
6. *Colin McRae Rally*	Codemasters
7. *Grand Theft Auto*	Take Two
8. *Tomorrow Never Dies*	Electronic Arts
9. *Tomb Raider II*	Eidos
10. *FIFA '99*	Electronic Arts

Christmas proved to be a time of good cheer for the UK's game retailers with sales records broken throughout the holiday season. Over 2 million software units, worth around £50 million, were sold in the week before December 25. Once again, the big hardware winner proved to be PlayStation, with a further half a million consoles gobbled up by the public in its last Christmas before PlayStation2 is released. The format now seems certain to break the six-million-unit barrier sometime during this year.

The best-selling games of the period also came from the industry's biggest players, with EA fighting over the top spot with Eidos. *FIFA 2000* won the coveted position to be Christmas number one. *Tomb Raider IV* and *Championship Manager '99/'00* were among the other top-grossing titles. The £2 million EA spent advertising its Bond-licensed game, *Tomorrow Never Dies*, also paid off with the much-derided title clocking up sales of over 200,000 during December.

Sega had reasons to be cheerful too, with Dreamcast well on track to meet its predicted sales figures. The UK installed base is around a quarter of a million, with the European total at a healthy 800,000.Sega's target is to have sold a million units throughout Europe by early 2000. However, the company is currently experiencing bottlenecks in production because of problems with the console's GD-ROM drives – it can manufacture only 350,000 units per month, instead of its 500,000 goal. With US sales continuing to be strong, this is limiting the number of units that can be shipped into Europe. Game sales, on the other hand, were more steady with Sega gaining six per cent of the overall software market in terms of value. Its biggest seller, unsurprisingly, was *Soul Calibur*, followed by *Sonic Adventure*.

Things were more gloomy for the N64, however, as sales of the console continued to lag behind its competitors. With the launch of Dolphin in the west well over a year away, it must be relying on the combined staying power of Rare and *Pokémon* to see it through the next 12 months. The red and blue flavours of Game Freak's little monsters were both in the Christmas top five, while *Donkey Kong 64* slipped into the chart at number nine, despite its £60 price tag.

UK HARDWARE SALES 1999

	DECEMBER	INSTALLED TOTAL (MILLIONS)
PlayStation	506,325	5.5
Dreamcast	87,222	0.24
Nintendo 64	54,477	1.5
Game Boy Color	322,978	1.5

Chart compiled by ChartTrack/copyright ELSPA

Once again, the big hardware winner proved to be PlayStation, with a further half a million consoles gobbled up by the public in its last Christmas before PlayStation2 is released

PS2 goes public

Japanese gamers will get their first taste of PlayStation2 thanks to Sony's official exhibition held on February 19-20 in Tokyo. Over 20 playable games will be demonstrated on 500 production consoles. Tickets have gone on sale priced at ¥1,000 (£6).

PlayStation2 publishers are starting to hype their products as well, with Japanese newspapers already carrying advertising for the console's launch games. Namco has started its publicity campaign for both *Ridge Racer V* and *Tekken Tag Tournament*, while From Software has run adverts for its slew of titles: *Eternal Ring*, *Evergrace* and *Armoured Core 2*.

American retailers have started their feeding frenzy with EB, Babbages, Gamestop.com and Toys 'R' Us offering preorders for PlayStation2. A deposit of $10 is needed. As for the final release details, their consensus is an extortionate $400 price tag, and a September 30 release date.



VM LABS GEARS UP FOR NUON PUSH

Interactive gaming technology prepares for release via mass-market DVD players








Six of the best from VM Labs' DVD-based gaming platform. Its launch games include (from top left clockwise) Jeff Minter's phantasmagorical *Tempest 3000*, best-selling point-and-clicker *Myst*, tipping puzzler *aMaze*, action mecha *Iron Soldier*, Diddy Kong Racing clone *Merlin Karting*, and shoot 'em up *Freefall*

SID'S DINOS



The latest in Sid Meier's *Sweep of Time* series will be another strategy title, this time set in a prehistoric world, involving dinosaurs. Follow Meier's diary at www.firaxis.com/dinosaurs

VM Labs has announced new hardware partners for its DVD-based embedded technology Nuon. It has also confirmed details of the launch games and new links with thirdparty peripheral companies.

The news came at the recent Consumer Electronics Show in Las Vegas. Top Taiwanese DVD manufacturer Raite will release its RDP-741, Nuon-enhanced DVD player in April, selling at around $300 (approx. £180).

Samsung has confirmed it will be supporting the technology in its N2000 player. This $500 (£300) machine, due in the spring, will use Nuon's filtering technology to allow any portion of the screen to be magnified up to 20 times.

Nuon's media processing replaces the MPEG decoders which are fitted as standard in digital devices. Other DVD and set-top box manufacturers committed to Nuon include Toshiba. Motorola's high-profile Streamaster set-top box also relies on Nuon's technology.

Also unveiled at CES were a number of Nuon-powered games. Among them, *Tempest 3000* was a typically polished (and trippy) effort from Jeff Minter, while *Merlin Racing* was a blatant, mediocre *Diddy Kong Racing* clone, and *Freefall* kept Jaguar fans' fires burning by furthering the theme of *Iron Soldier*. Simpler tastes were pandered to by the likes of *Myst* and *aMaze*, the latter being an amazingly straightforward puzzle title. Only *T3K* managed to generate any form of commotion.

Peripheral manufacturers such as HotProducts, NYKO and Eleven Engineering will also be bringing out a range of game controllers and accessories for Nuon, including lightguns, memory cards and keyboards.

VM Labs has signed a deal with software tool developer InterActual which should enable film studios to easily upgrade their DVDs with direct links to Web sites (for Net-capable devices), allow users to browse scripts and storyboards, and customise the screen interface. Projects which have used InterActual's authoring tools in DVD creation include 'The Blair Witch Project', 'The Matrix', 'The Mummy', and 'Austin Powers: The Spy Who Shagged Me'.



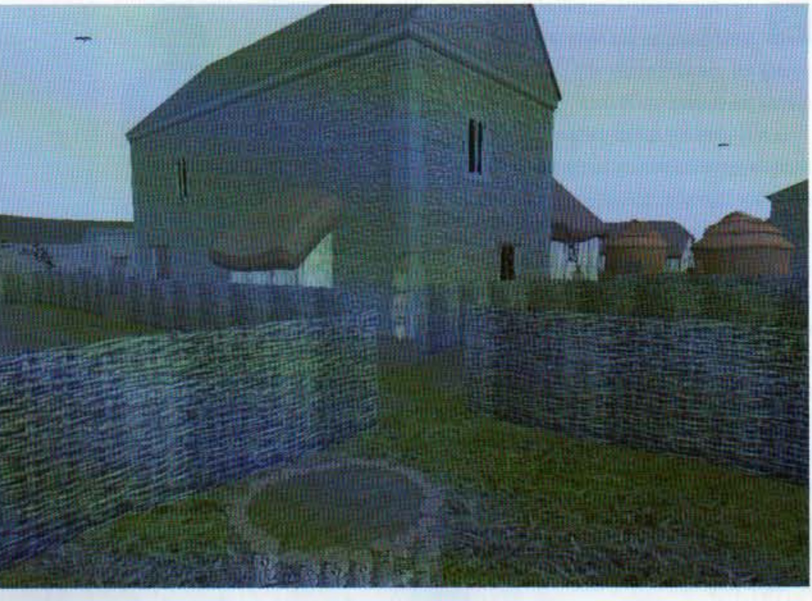
One of the thirdparty controllers for Nuon will be Eleven's radio wireless Airplay devices

PLAY AS YOU LEARN POWERS UP

Medieval history comes to life thanks to Elixir's Totality engine



***Medieval Kingdom* is the start of what Immersive hopes will be an entirely new paradigm in educational software**



The wider aim of this game is to bring a normally archaic subject – medieval history – to life using top-of-the-range computers not normally seen in the school environment, such as PIIIs

Educational software is becoming cutting edge thanks to developer Immersive Education – set up by realtime tools expert MathEngine and Demis Hassabis' Elixir Studios.

Immersive's debut title, *Medieval Kingdom*, uses MathEngine's physics code and the Totality engine which powers Elixir's game, *Republic*.

"We want to move educational software into a new era, one that's much closer to the games industry," says **Lincoln Wallen**, MathEngine's technical director.

The studio's director, **Ian Maber**, agrees: "Most current educational material is quite bland. It's point-and-click, prerendered scenes. Yet at home kids can play any number of games where they control armies and empires."

Developed with the Intel-Oxford University Education Initiative, Immersive is working closely with teachers to ensure the game meets their criteria. They selected its historic setting. Designed for 12- to 13-years-olds, *Medieval Kingdom* fulfils key stage three in the history syllabus of the national curriculum.

Based at a 13th century manor house, the firstperson perspective game allows students to interact with up to 79 residents of all ages as they go about their everyday lives. "The characters will have a degree of autonomous AI. They will be charged with daily tasks and you will be able to follow them around throughout the day," explains programmer **Ian Downend**.

Students will also be able to trigger prescripted sequences, where characters discuss a specific historical topic chosen in advance by the teacher. Birds, rats and domestic animals are also included in the simulation. And Totality's impressive architectural rendering power is put to good use – there are 40 buildings ranging from plain houses to a church, blacksmiths and a watermill, with polygon counts from 12,000 to above 60,000.

In contrast to most educational games, designed for low-end PCs, *Medieval Kingdom* is designed to push the performance of PCs such as the Pentium III. The game also has strong online aspects, which allow students to download 3D models of objects and buildings that feature in the game and interact with them in greater detail.

A joint announcement is expected soon by the government, Intel and Dell, concerning the stated aim of ensuring every school in the country is equipped with state-of-the-art, Net-connected PCs required to play games such as *Medieval Kingdom*.

Debut title aims to move educational software away from bland 'point-and-click' scenes into a new era, closer to the games industry, as government plans arrive for state-of-the-art school PCs



Set up by Mathengine and Elixir, Immersive is hoping to make education software to rival the best games

BERNIE'S BACK



After an ignominious $5m exit from Sega, Bernie Stolar has returned to the games industry. He will head Mattel's troubled interactive division, previously known as The Learning Company

JAPANESE LEAD THE WAY AT GDC

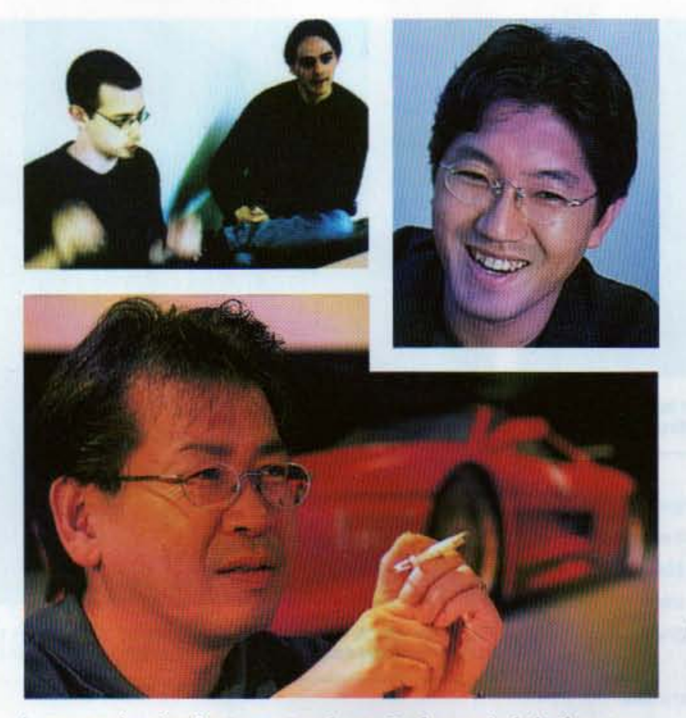
Annual developers conference looks to the east for inspiration

S*henmue* creator Yu Suzuki and *Sonic* producer Yuji Naka are among the speakers at the 14th Games Developers Conference.

Suzuki-san's talk on the place of reality in games seems certain to be one of the highlights, following the acclaim for his game's first chapter.

The event will be staged at San Jose, near San Francisco, from March 8-12. Other industry figures set to deliver presentations include Sony's Phil Harrison and Hasbro president Tom Dusenberry. Oddworld co-founder Lorne Lanning's session will also include a work-in-progress look at *Munch's Oddysee*, a launch title for PlayStation2 in the US.

But in contrast to 1999, when the keynote speaker was Shigeru Miyamoto, this year sees a non-gaming personality in the spotlight. Founder of parallel computer pioneer Thinking Machines and current Disney Fellow,



Key speakers for the Games Developers Conference include (from top left, clockwise) Toby Gard and Paul Douglas, Yuji Naka and Yu Suzuki

Shenmue creator and *Sonic* producer expected to be highlights of annual event. Creator of 10,000-year timepiece to bring an unusual focus

Danny Hillis, will open the conference with a long-term look at the collision between technology and entertainment. His latest project is the design of a timepiece aimed to last 10,000 years.

Peter Molyneux will be giving a lecture on next-generation ethos. He will be using *Black & White* as an example, while Lara Croft's surrogate fathers Toby Gard and Paul Douglas will be passing on the benefits of their knowledge on character creation.

Other UK speakers include ATD's Fred Gill on the problems of porting *Rollcage*, Jez San on licensing middleware and technology, and Demis Hassabis on founding a start-up.

Meanwhile, it's rumoured that Microsoft will use the opportunity to continue its unofficial X-Box campaign to try to capture the imagination of developers prior to E3.

Nintendo will be out to impress thirdparty coders with the accessibility of its Dolphin hardware. Announcements on the next generation of graphics cards are also expected from Matrox and Nvidia.

GOVERNMENT GRANTS FOR BRITSOFT TRIP

Applications invited for the games software mission to the Tokyo Game Show



The UK has always maintained a strong presence at the TGS

British Trade International is organising a trip to the spring Tokyo Game Show for UK developers and publishers, following a successful first outing last March. A travel grant and the payment of interpretation fees during the show are available as part of the programme. In addition to the game show, the mission provides the opportunity to visit Sony, Nintendo and Sega and other key Japanese game companies, in conjunction with the British Embassy.

The deadline for applications, including a £250 deposit, is Friday, February 18. For further information, email alan.davidson@xpdv.gov.uk or call on 0207 215 8054. The mission's Web site is at www.actionjapan.org.uk

CUTTINGS

Tooling up for Game Boy
Following the precedent set by Sony's PlayStation2 middleware programme, tools expert Cygnus has announced the release of a software development kit for Nintendo's upcoming 32bit Game Boy Advance handheld. The code simulates the GBA's ARM-Thumb instruction set, allowing approved Nintendo developers to debug the initial stages of their C/C++ code.

Online games standard
Team Fortress developer Valve software has linked with giant Internet router firm Cisco to set up protocols for online gaming. The PowerPlay project hopes to streamline both the design of networked games and the way ISPs implement online games. The first release of PowerPlay is expected by Easter and will be closely followed by a 30-day free dial-up service.

Brazil bans games
Following a triple homicide in a San Paulo cinema in which *Duke Nukem* was allegedly implicated, the Brazilian Justice Ministry has banned the game. It has ordered that *Doom*, *Mortal Kombat*, *Requiem* and *Postal* be removed from shops.

Old games revisited
As part of the online services being offered on the 64DD, Nintendo is working on a software emulator that will allow users to download Super Famicom games for a nominal fee.

Amen's amen
The hit-based nature of game development was underlined by Cavedog's decision to cancel its firstperson shooter title, *Amen*. Instead, it wants to focus work on games within existing brands such as *Total Annihilation 2*.

Glide goes free
The latest proprietory software stronghold to fall to the open-source community is 3dfx's Glide API. 3dfx will now focus on OpenGL and D3D technology.

PRESCREEN

EDGE PREMIERES INTERACTIVE ENTERTAINMENT'S FRESHEST FACES

Navel gazing through a crystal ball

It's the end of gaming as we knew it. And Edge feels fine

Despite it being **Edge**'s mission statement for 81 issues, it's never been clear what 'the future of interactive entertainment' actually means. It could have been defined by anything from *Civilisation II* empire building or an après-boozer mission of *Driver* to the occasional use of a borrowed handheld or a burst of shockwaved *Pac-Man* while waiting for an .avi to download from the Net. The subject is too broad to define.

The year 2000 is bringing convergence to this will-o'-the-wisp masthead, thanks to Sony's PlayStation. Talk to any industry figure about their hopes and fears for the future and all the responses neatly coincide: PlayStation2. Such is the fervour, Sony may as well just drop the 'l' and call its moneymaker PayStation.

The more cerebral, and important question, is whether PlayStation2 will encompass the future of gaming. It was instructive to see that only one PlayStation game made it into the first ten of **Edge**'s Top 100 games of all time. Positioning its black box to be the valve through which all entertainment is piped into the living room will certainly win Sony the console war, but may not influence the creative skirmishes that will define the future of gaming. In many respects, the battlelines are already drawn.

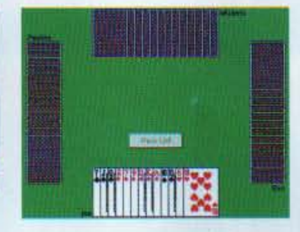
The main influence on the future will be a middle-aged woman in Leamington Spa playing cards online, not an otaku playing 300 hours into *Shenmue*'s fourth chapter. The one trend that will shape the future of gaming isn't broadband online, social multiplayer or DVD, but the continuing rise of the casual gamer. The hardcore age is over.

This can only be good because if there is one thing worse than preaching to the converted, it's playing games designed for gamers. Not to pick on Interplay specifically, but its recent topsy turvy history demonstrates the fallacy of its mission statement. 'By gamers. For gamers' is no longer good enough – at least not if a developer or publisher wants to survive economically.

The result of such thinking is too often unintuitive gameplay, bad plots and torturous controls. Compared to this, games in which the fundamental requirement is to appeal to the largest number of people should be welcomed. The future will only be bright if it is also bigger than can currently be imagined.







The future of interactive entertainment is PlayStation2 but the future of gaming is more likely to be influenced by really casual gaming than hardcore: think online hearts rather than *Shenmue*

Edge's most wanted

High hopes for the rest of 2000



Sacrifice	Red Dog	Type-S	Quake III
(PC) Shiny	(DC) Argonaut	(PS2) Escape/Square	(DC) id
Demoed by Dave Perry on a recent press trip, Shiny's top-secret fantasy RTS is an innovative take on the well-worn genre. It already looks gorgeous.	Despite suffering delays, the latest playable version of Argy's tank shoot 'em up demonstrates addictive multiplayer action. Expect an early spring release.	As well as all the usual car options, this racer will also bring the human element into the frame with drivers sporting different styles and interior car views.	It's the big year for Sega. To ensure Dreamcast's future it must make the most of the console's online capacity. Id's FPS monster is the solution.

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PRESCREEN ALPHAS

NINTENDO'S TWYCROSS POWERHOUSE SPEARHEADS THE GAMES BLOWING AWAY EDGE'S WINTER BLUES

BANJO-TOOIE

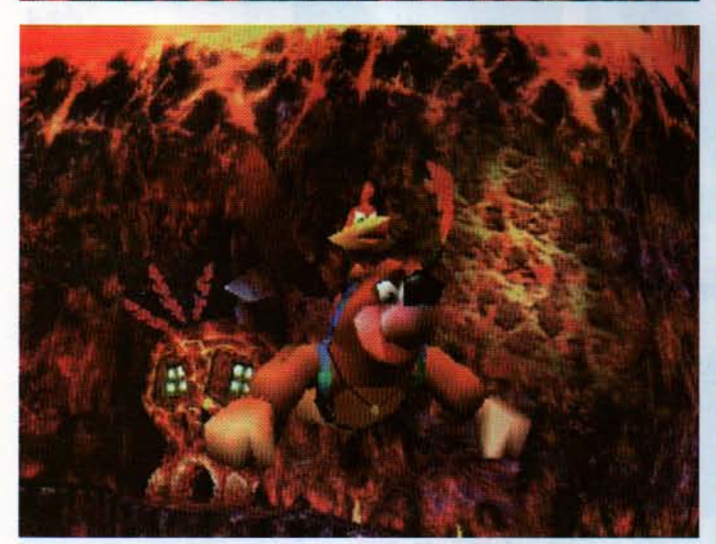
FORMAT: **N64** DEVELOPER: **RARE**



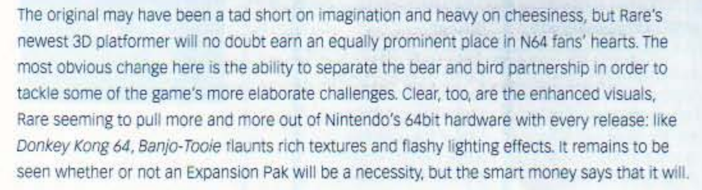












The original may have been a tad short on imagination and heavy on cheesiness, but Rare's newest 3D platformer will no doubt earn an equally prominent place in N64 fans' hearts. The most obvious change here is the ability to separate the bear and bird partnership in order to tackle some of the game's more elaborate challenges. Clear, too, are the enhanced visuals, Rare seeming to pull more and more out of Nintendo's 64bit hardware with every release: like *Donkey Kong 64*, *Banjo-Tooie* flaunts rich textures and flashy lighting effects. It remains to be seen whether or not an Expansion Pak will be a necessity, but the smart money says that it will.

BIOHAZARD CODE: VERONICA

FORMAT: **DREAMCAST** DEVELOPER: **CAPCOM**















A demo version of Capcom's freshest survival horror title reveals a game as aesthetically punchy as could have been wished for: the locations are navigated at 60fps, making this second only to *Shenmue* in terms of Dreamcast graphical achievement. The developer's sources of inspiration are clear from the word go, with an intro aping the likes of 'Jurassic Park' and, more obviously, the work of John Woo, with a stand-off sequence that anyone who's seen the likes of 'The Killer' will not be able to view without cringing. In the game, shocks are heightened through the use of realtime locales.

RIDGE RACER V

FORMAT: **PLAYSTATION2** DEVELOPER: **NAMCO**





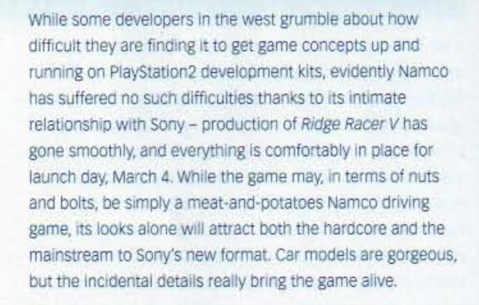












While some developers in the west grumble about how difficult they are finding it to get game concepts up and running on PlayStation2 development kits, evidently Namco has suffered no such difficulties thanks to its intimate relationship with Sony – production of *Ridge Racer V* has gone smoothly, and everything is comfortably in place for launch day, March 4. While the game may, in terms of nuts and bolts, be simply a meat-and-potatoes Namco driving game, its looks alone will attract both the hardcore and the mainstream to Sony's new format. Car models are gorgeous, but the incidental details really bring the game alive.

SPIDER-MAN

FORMAT: **PLAYSTATION** DEVELOPER: **NEVERSOFT**







With the basic game in place and the freeing up of coders from *Tony Hawk's Skateboarding*, Neversoft is concentrating on polishing the level design for its Marvel licence title. One of the biggest issues it faces is a restriction preventing any of Spidey's enemies from being killed – a tricky problem when the bad guys can tumble from the top of skyscrapers.

Another concern is the balancing of gameplay. Early demos have emphasised *Metal Gear Solid*-style sneaking around rather than out-and-out brawling, but both should be in evidence in the finished code. Neversoft is promising lashings of webby humour, too.

RUNE

FORMAT: **PC** DEVELOPER: **HUMAN HEAD**

Based on the mythology of the vikings, *Rune* is shaping into one of the better games within the protective shield of the Gathering of Developers. Using an enhanced version of the *Unreal* engine, the thirdperson fantasy action game features all mod cons: skeletal animations, advance particle systems, level of detail technology and realistic physics.

The most recent version seen by **Edge** proves to have solid gameplay. Codeshop Human Head stresses that the game isn't a RPG but will be split 40:60 between puzzle and action elements. Expect an autumn release.





MARVEL VS CAPCOM 2

FORMAT: **COIN-OP/DREAMCAST** DEVELOPER: **CAPCOM**

Continuing the endless stream of 2D beat 'em ups to emerge from Capcom, the second bout of *Marvel Vs Capcom* uses the three-man tag-team concept stolen from SNK's *King of Fighters* series. The game's variable attacks and delayed hyper combos have been updated to include the extra character, providing players with additional tactical choices of which brawlers to team together.

Extra fighters make an appearance, too: Rudy Heart, Amingo, Sonson and Hayato for Capcom, and Cable and Marrow for Marvel. Capcom is continuing to support the VMS link between the arcade release and the forthcoming Dreamcast version, with special game modes and features.







ETERNAL RING

FORMAT: **PLAYSTATION2** DEVELOPER: **FROM SOFTWARE**







Among the biggest surprises concerning Sony's next console is the number of time-consuming, big-budget RPGs listed as launch games. From Software is simultaneously developing two titles and has recently started its advertising campaign for them in the Japanese press.

The latest details regarding *Eternal Ring* reveal that you play a young warrior, Kain Morgan, sent on a mission to the 'Island Of No Return'. The magic system is based on rings worn on your fingers: the ring worn on the thumb determines the primary spell, while the other four fingers control magical combos.

GUILTY GEAR 2

FORMAT: **COIN-OP** DEVELOPER: **ARC SYSTEMS**









Despite racking up half a million sales with the original PlayStation incarnation of its 2D beat 'em up, Arc Systems, in conjunction with publisher Sammy, has decided to shift the next *Guilty Gear* game over to Sega's Naomi architecture. Still resolutely 2D in presentation, the additional graphic muscle greatly improves the detail of the animation, running at a steady 60fps over gloriously illustrated backgrounds rendered in super-crisp hi-res. Four attacks – punch, kick, sword and sword super – drive the action, and, despite having only eight in place at present, around a dozen characters are expected in the finished game.

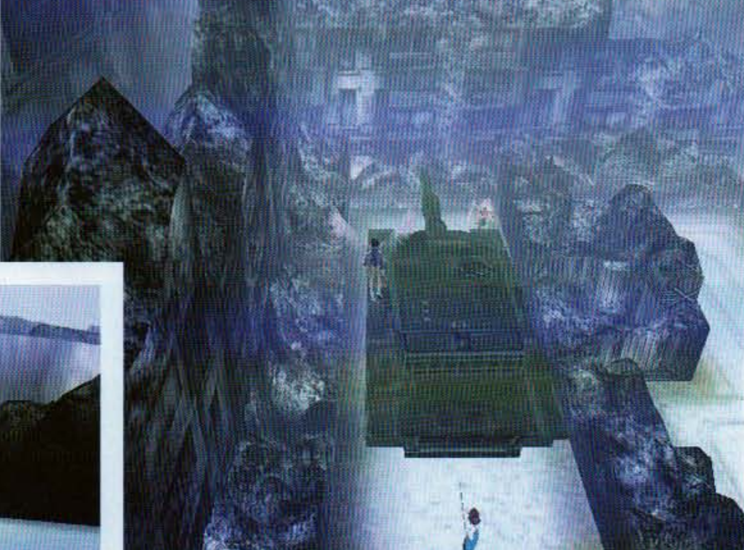
INNOCENT TEARS

FORMAT: **DREAMCAST** DEVELOPER: **GLOBAL**



Mixing turn-based strategy with the novel scenario of an RPG, *Innocent Tears* takes place in a Tokyo devastated after the apocalypse. Bands of angels roam the city – evil ones eating people, good ones at war with the bad, and attempting to defend what's left of humanity. Caught in the middle is Haruaki, a good angel out to redeem the soul of Kagari, his ex-girlfriend, now working for the darkside.

Starting with just two characters, progress through the game unlocks another ten; only five can be grouped with Haruaki at any one time. Combat proves interesting, with characters allocated a certain amount of action points which can be use for combat, spells, movement, or combinations of each.





KESSEN

FORMAT: **PLAYSTATION2** DEVELOPER: **KOEI**

It may have been one of the first games to demonstrate PlayStation2's potential back in August, but even now, the Sinocentric war stimulation continues to impress visually.

Set in 16th century Japan, players get to control armies of up to 200 infantry and cavalry in realtime battles. Each scenario is loosely based on historic events. Players organise battles and have to deal with diplomacy, too. One of the game's key features seems likely to be the use of specialised ninja units, which can be hidden behind enemy lines to provide intelligence and carry out acts of sabotage to panic troops at the crucial point.





HEAVY METAL FAKK 2:

FORMAT: **PC/MAC** DEVELOPER: **RITUAL**

The concept started life as an adult-orientated sex'n'violence comic but before long *Heavy Metal* had morphed into an animated movie, and another straight-to-video flick based on the *FAKK 2* world is expected this year. Kevin 'Teenage Mutant Ninja Turtle' Eastman's dream will only be completed with the release of this *Quake III*-engined action game. Starring B-movie starlet Julie Strain (coincidentally Eastman's wife), and using much of the technology Ritual originally developed for *SiN*, *FAKK 2* should at least please the more juvenile end of the PC community. As for gameplay, the thirdperson action/adventure promises Croft-style climbing, while combat is in the swordslashing vein of *Drakan*.







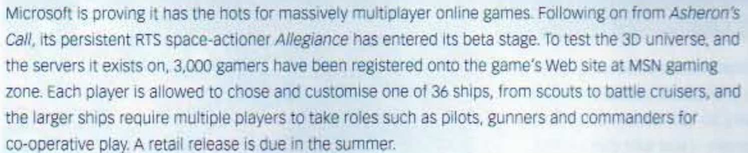
ALLEGIANCE

FORMAT: **PC** DEVELOPER: **MICROSOFT**









Microsoft is proving it has the hots for massively multiplayer online games. Following on from *Asheron's Call*, its persistent RTS space-actioner *Allegiance* has entered its beta stage. To test the 3D universe, and the servers it exists on, 3,000 gamers have been registered onto the game's Web site at MSN gaming zone. Each player is allowed to chose and customise one of 36 ships, from scouts to battle cruisers, and the larger ships require multiple players to take roles such as pilots, gunners and commanders for co-operative play. A retail release is due in the summer.

ONI

FORMAT: **PC/MAC** DEVELOPER: **BUNGIE**

It's been a rocky ride for Bungie's anime-themed thriller. First up project leader Brent Pease left mysteriously, closely followed by rumours that the game was suffering from serious delays.

The demo levels shown running on networked Apple G3s at MacWorld have received plenty of positive feedback, despite some bugs and low framerates. The game's unique combat system, mixing guns with hand-to-hand fighting, seems to work well, with heroine Konoko able to disarm her opponents. The current release of images concentrates on this aspect, revealing the resulting spills-heavy action.



GRANDIA 2

FORMAT: **DREAMCAST** DEVELOPER: **GAME ARTS**

GUN BIRD 2

Four years after the original, Psikyo (with help from Capcom) finally updated its cult shooting game last year, with the coin-op release of the sequel, and now it's time for a Dreamcast version. Various features have been added to the console version, not least online functionality based on that designed for *Giga Wings*. The original characters, Marion and Morrigan, have been retained, as has the twoplayer co-operative mode.





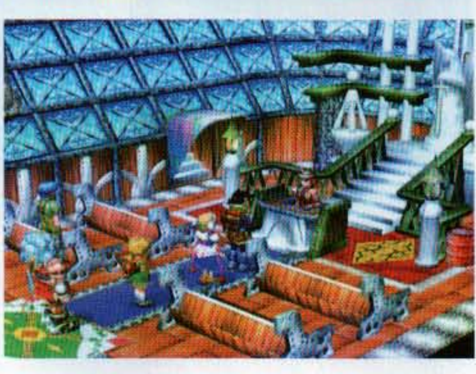












With fantasy RPGs still in short supply for Dreamcast, the sequel to Game Art's popular Saturn game is certain to be highly anticipated. Updates include the move to polygonal characters (four per team), 3D turn-based combat and a twoplayer modem-supported mode. The camera is also fully controllable.

STARSIEGE: TRIBES II

FORMAT: **PC** DEVELOPER: **DYNAMIX**

Having survived the restructuring of Sierra Studios, progress to the sequel of the popular team-based FPS should now be speeded up. One specific area being worked on is the game's client/server architecture so that large numbers of players will be able to jump in and out of battle smoothly.











ROOMANIA

FORMAT: **DREAMCAST** DEVELOPER: **SEGA**

With one of the staples of Japanese gaming being the life simulator – encompassing every activity from driving trains to finding a girlfriend – it's no surprise that one of the genre's first games for Dreamcast is a *Sims*-like real-world title, *Roomania*. Players get to mess around with the life of one Neji Taihei as he lives out his existence in a Japanese bachelor's apartment.

The game's two self-explanatory modes, Home and Absent, demonstrate that the only environment where players can interact with Neji is when he is in the flat. Of course, that could well limit the game's popularity. But with the continued success of *Seaman*, Sega will be hoping that its new title will become another 'sleeper' hit with the light users it is targeting.



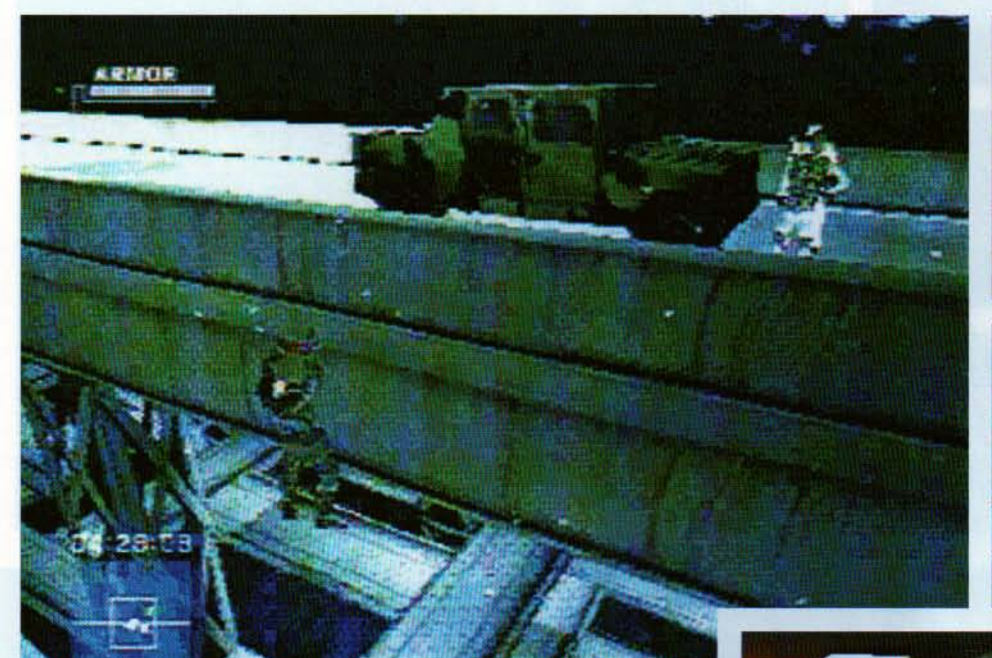






SYPHON FILTER 2

After the surprise popularity of *Syphon Filter* in 1999, 989 Studios speeds out a sequel with the apparent essentials to deliver another success story







Succeeding takes using your head as well as your weapon: it can be better to take risks and avoid a fight than attack an overwhelming enemy force



Gabe can lock his sights on an enemy while moving. There's also a sniper mode for those moments when keeping a distance is advisable

Format: **PlayStation**

Publisher: **989 Studios**

Developer: **Eidetic**

Release: **TBA**

Origin: **US**

Syphon Filter was the unexpected hit of 1999, combining some of the best stealth of *Metal Gear*, an intense plot and decent game design. Due to its odd release date and little advance coverage, however, the title caught many people by surprise, but it went on to become one of the best-selling PlayStation games of the year. With that kind of success, of course, a sequel was guaranteed.

Unfortunately, the plot details of *Syphon Filter 2* are more securely locked up than the Secret Service. It's known that the game starts immediately after the first one – Gabe and his crew being betrayed as they try to return the missing killer virus, Syphon Filter, back into US possession.

After a long and engrossing intro, the game opens with Gabe giving chase to the bad guys, pursuing the Syphon Filter virus and his kidnapped partner, Lian, who appears to have been infected.

In an interesting twist, you will be able to play as Lian for a fair chunk of the game, something that should provide a stark contrast to the 'shoot first, ask questions later' style used when playing as Gabe.

At its base level, gameplay remains essentially unchanged. Despite the game's larger size (two CDs with more than 20 levels), it still seems to follow the same structure of having missions which are broken into separate levels. Each level will contain sub-missions that help to advance the plot. The conspiracy looks like it goes farther into the US government this time, so you'll be fighting more top agents and possibly even some of





Expect the baddies to put up a tougher, more intelligent fight as the conspiracy gets closer to the government. Myriad twists are expected







Each level contains sub-missions that must be completed in order to advance the plot. You can play some levels as Lian instead of Gabe

the world's top commandos. A new scripting system has been introduced, too, so you can expect many of these baddies to put up a tougher, more intelligent fight. Fortunately, with the added difficulty also comes the ability to save at checkpoints, so you won't necessarily have to play well into the night in order to beat the last part of a level.

One of the most innovative features of the first game – the ability to lock your sights on a target while you run in any direction – was in evidence in the early build played by **Edge,** so you'll be able to re-enact your favourite John Woo-style moments as you dash across rooms dodging automatic gunfire, returning fire all the while. Intense stuff.

The conspiracy penetrates deep **into the government.** You'll be **fighting more top agents and** some of the world's top commandos

With the new twoplayer splitscreen mode, you can experience dramatic gunfights as you try to prove who is the best agent in one of 15 different multiplayer arenas. With its dark espionage feel, improved graphics, and lengthened storyline, there's no doubt that *Syphon Filter 2* will be another hit for 989 Studios (especially considering it's set to appear in the relatively quiet first half of 2000).

Eidetic is also believed to be working with Sony's PlayStation2 technology, and rumour has it that its first 128bit game will be a sequel to this title, furthering the series' story. Freed from 32bit limitations, part three will doubtless be the tastiest yet.





Gabe can disguise himself in order to roam through some areas undetected – so long as he doesn't have to talk to anybody. This is how *Mission: Impossible* should have worked

F1-2000

EA Sports promises the most realistic Formula One game of all time as it ventures onto a heavily burned racetrack for the first time



These work-in-progress shots feature the 1999 season liveries, but rest assured that the finished thing is fully licensed for the 2000 season. They will allow you to play along with the real-life event, instead of having to wait until autumn, when titles of this ilk traditionally trundle onto shop shelves



The PC version's background textures boast an impressive pseudo-photorealistic quality. You may not notice them at 200mph

Format: **PlayStation/PC**

Publisher: **EA**

Developer: **Visual Sciences**

Release: **TBA**

Origin: **UK**

And so videogaming's Formula One championship continues. Believed to be developed by Visual Sciences (responsible for the *F1 '98* debacle on PlayStation), EA's first venture into the most oversubscribed of motorsport's subgenres is set to emerge as the 2000 season gets underway.

As with football titles, **Edge** has lost track of the number of F1 games due out from the various publishers desperately hoping to cash in on a traditionally lucrative market. If it hasn't already, the bubble is bound to burst any day.

However, as the game carries the official licence for this year, F1 racers will, for once, be able to play alongside the real life event with the correct liveries, teams and driver pairings. (Traditionally, players have had to wait until the autumn to enjoy that experience with most F1-based games.) This factor alone may represent something of a selling point for die-hard F1 fans, although **Edge** suspects anyone who already owns the rather competent *F1 '99* on the PlayStation or Eidos' rather fine, if lightweight, F1 title, will require a little more convincing.

Nevertheless, you won't be surprised to learn that EA is promising to deliver the most realistic F1 game of all time (a statement with which Geoff Crammond's forthcoming *Grand Prix 3* may well disagree).

This one has the usual assortment of sophisticated AI, pit-crew-to-car-radio link, multiple car failures, full rules, realistic crashes, 3D cockpit, realtime shadows, driver aids, smoke/dust effects, multiplayer options (twoplayer splitscreen on PS), comprehensive set up choices, extensive replay options, and even dynamic skidmarks.

And, as with all EA Sports titles, expect the presentation to be flawless. In this case, Jim Rosenthal (for three years presenter of ITV's F1 coverage) does all the game's pre- and post-race honours.

Regardless of whether the market can sustain yet another F1 title, **Edge** hopes at the very least that the finished product is an acceptable representation of this sport – rather than a shallow, underdeveloped and exploitative digital exercise such as those EA has been associated with. And it had better have a safety car, too – its inclusion is *de rigueur* nowadays.







Other than some obvious graphical differences, the PlayStation version of *F1 2000* offers less features than its PC stablemate

MEDIEVIL 2

Sony's homegrown paean to ghosts and goblins returns for more gothic action – this time in foggy Victorian London, with stimulating puzzles







***MediEvil II* is filled with eerie gothic architecture for undead monsters to create havoc in (above). Combat is a major feature, with new weapons (right)**



The sequel is set to include plenty of puzzles. Edge suspects that opening this gate may be one of them

Format:	**PlayStation**
Publisher:	**SCEE**
Developer:	**In-house**
Release:	**TBA**
Origin:	**UK**

And so Sony's love affair with the 3D platform adventure continues. After publishing two *Spyros* and four *Crash Bandicoots*, the company is regurgitating another of its hugely successful licences – the mildly spooky *MediEvil*.

Released at the end of 1998, the original *Ghosts 'n' Goblins*-like title nudged you into the role of undead hero Sir Daniel Fortesque as he battled a dark age sorcerer named Zarok and his army of reanimated zombies. The gameplay was typical thirdperson arcade adventure fare: players explored levels, picking up new weapons, fighting ridiculous monsters and solving the odd puzzle. Here, though, the control system actually worked, and big monsters were well put together.

For the sequel, the action moves forward 500 years to a foggy Victorian London, split into 17 free-roaming levels and filled with familiar landmarks (such as Kew Gardens and Greenwich docks). This time the enemy is a magician, Lord Palethorne, who has discovered Zarok's monster awakening spell. He sets off to take over the world with a vast army of assorted demons, imps and fat bearded women. (There's nothing more likely to sell a game than the promise of hirsute ladies.)

As for new stuff, you're promised a familiar assortment. There is apparently more character interaction, lots of new weapons (including broadswords, axes and a Gatling gun), and larger maps to explore.

There are also several different versions of the lead character to control, including DanHand, HeadlessDan and Dankenstein. Each one has its own strengths, weaknesses and roles in the puzzle-centred gameplay. Mostly, though, Sony is pushing the 'deep, involving and humorous storyline' and the wacky nature of the baddies as the game's key assets.

Humour, you'll recall, is something several recent titles in this genre have attempted (remember the Leslie Phillips dialogue in *Gex*?), but few have come anywhere near the success of, say, *Monkey Island*. It'll be interesting to see how this UK-based team fares with so many failures before it.

Not that Sony should worry. The passable original apparently sold more than 800,000 units. There's no reason this one won't do just as well.

The gothic scenery, vaguely endearing lead character and some well-drawn enemies should be enough to draw back fans of the original, while everyone else will want to see more of the apparently deep story, the stimulating puzzles and the non-linear levels. The market is flooded with similar titles, but this could be closer to the likes of *Zelda* to make a real difference.



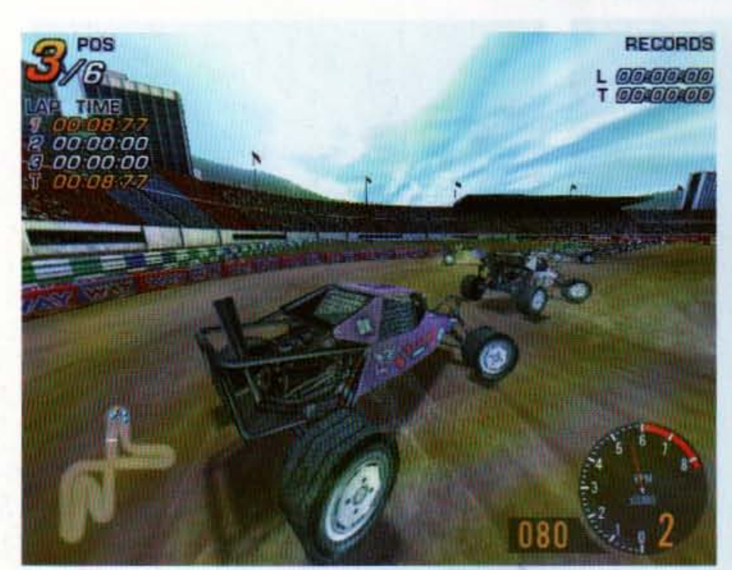




Enemies range from walking plants to living museum exhibits. All are well crafted, as is the lead character

BEETLE CRAZY CUP

With everyone trying (and failing) to equal *Gran Turismo*'s realistic and immersive quality, Xpiral strays off the beaten path in favour of some good old-fashioned action



At this stage, things are looking technically adept, although the vehicles have a tendency to understeer, requiring an overly cautious racing approach



One of the Beetle Challenge categories (top) which should test your gameplay skills the way old games used to. Practice makes perfect





One of the more wacky aspects of *BCC* is the Jump mode, where you nitro your car up a ramp hoping to set a distance record in car jumping

Format: **PC**

Publisher: **Infogrames**

Developer: **Xpiral**

Release: **February 11**

Origin: **Spain**

Veteran **Edge** readers may remember seeing this way back in November 1997 (**E**51) when the concept was little more than a straightforward racing game featuring Beetles. It's fair to say things have changed somewhat.

Normal racing still features, but extra modes have been added for variety. Along with Tarmac-based tracks (in the Speed category), Buggy offers sandy beaches to race on, and Cross takes the stadium-based circuits of motorbike supercross (with far less jumps) but replaces the two-wheeled vehicles with US-type off-roaders. Monster offers monster truck racing, and Jump requires you to race your car up a ramp and land it as far ahead as possible.

There are also three championships, which must be completed in order, mixing all five categories and the Beetle Challenge. This offers trials which must be accomplished before the Challenge Cup becomes accessible. Should you choose the monster truck option, for example, you'll be asked to complete two laps around a hazard-laden course within a strict time limit. Hit any of the hazards and expect to incur an immediate time penalty. It's challenging stuff.

Completing trials and winning races rewards you financially. You can then empty your bank account by purchasing better, faster vehicles. Given the variety on offer, you're likely to run out of money before you run out of cars to buy.

The handling, as you'd expect, is firmly planted in the arcade patch of the realism plot and hence very forgiving, but **Edge** would nevertheless argue that the cars have an unhealthy tendency to understeer (you turn the wheel and very little, if anything, happens). A little more grip would certainly improve matters.

But even at this stage, *Beetle Crazy Cup* is surprisingly good fun. The variety in racing styles combined with the real hardcore nature of the Beetle Challenge trials makes the experience particularly addictive. If Xpiral polishes some of the more apparent deficiencies (such as the handling and overall vehicle dynamics – monster trucks could be more bouncy, collisions with barriers are overly punitive), then this could well be a pleasant surprise.





The variety of cars and types of racing is wide – just don't expect *GT2*

EVOLVA

The 'squad-based, genetic engineering tactical warfare, with fuzzy logic artificial intelligence' genre is about to be invented – by Computer Artworks' debut game







A key gameplay element is *Evolva's* squad-based design. (Above) Selected genohunters are circled



There are no power-ups in *Evolva*. Instead the genes collected from killed creatures are mutated into the genohunters' DNA









There are ten weapons for each genohunter. These range from fire breath to giant claws, grenade launchers and high-speed dart guns

Format: **PC**

Publisher: **Virgin**

Developer: **Computer Artworks**

Release: **March**

Origin: **UK**

It's been a busy, high-profile eight months for Computer Artworks, since **Edge** last looked at *Evolva*. A judicious link with Creative saw it put together a cut-down version, called *Evolva Scout*, for an OEM bundle with Creative's GeForce-based graphics board, *Annihilator*.

Now, as the game enters its final crunch time before its spring release, the effects of redesign and balancing are becoming apparent. One of the most obvious changes is that all four genohunters are now available throughout the game. It was planned to make just one available at the start, the rest later, but feedback from testers forced a rethink.

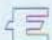
With complete access to four characters, it is unsurprising that squad-based tactics prove to be the foundation of play. Control of each genohunter is switched using the first four function keys. The commands (such as 'stay', 'go' or 'attack') are vital, as the most lightly armoured genohunters have to be well protected from hordes of powerful enemies.

One of the final areas being tweaked is the genohunters' AI, to try to decrease vulnerability. The fuzzy logic AI of the enemies is also looking good, with hand-to-hand fighting creatures rushing towards the genohunters, in a way which is scarily reminiscent of *Starship Troopers*. But creatures with long-range weapons will prefer to use cover and hide in the foliage.

Each genohunter starts with its own set of characteristics: speed, agility, strength or intelligence. Through the game, players can mould these characteristics to suit their playing style, as they collect the DNA from the creatures they have killed.

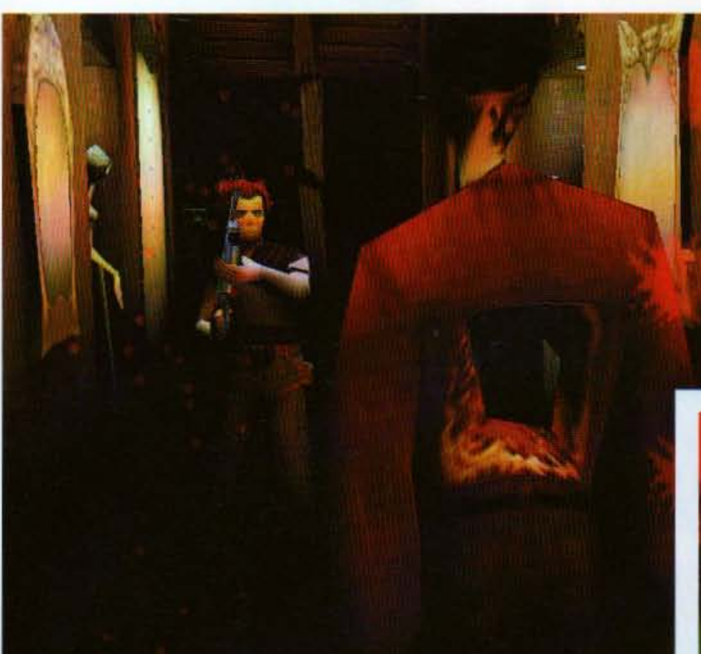
This allows players to either create a team of highly specialised genohunters, in which one will be, say, easy to kill but very fast, or a team that is average at everything and so easier to control as a group.

One surprising aspect of the game is its platformer elements – the enormous levels have plenty of high-rise features. For example, in the first level, all genohunters must gain jumping characteristics to leap over a chasm obstacle. These types of cross-genre characteristic seem certain to make or break *Evolva*.



DEVIL INSIDE

Never heard of Hubert Chardot? He's the author of one of videogaming's more popular horror series. No, not *Resident Evil*. *Alone in the Dark*. Surprised his latest project is a little on the gory side?



Significant parts of zombie anatomy can be blown away before your opponents give up the chase – they'll have to lose their heads for that













Deva, your character's winged alter ego, is not only able to fly about the levels but can also shoot energy bolts from her delicate digits

Format: **PC**

Publisher: **Cryo**

Developer: **Gamesquad**

Release: **Spring**

Origin: **France**

Coming from *Alone in the Dark* series author Hubert Chardot, this 3D action adventure promises to be more than simply another *Resident Evil* clone.

For a start, some thought has gone into the plot. Captured in 1994 and sentenced in 1995, America's most serious serial killer Harry Grimes (aka The Night Howler) is sent to the electric chair two years later.

Bored with hell, in 1999 he escapes with 39 of the most twisted souls to have gained entry to the underworld and the group moves into LA. This is where you come in.

As Dave Ackland, a journalist whose last job allowed him to flash an LAPD badge around, you carry out paranormal investigations for a live cable TV show (hosted by Jack T Ripper). This particular night it's time to investigate Shadow Gate, the mansion housing The Night Howler and his gang of murderers.

Being part of a televised programme throws up interesting gameplay issues. Lose the cameraman who accompanies your progress and the satellite link is cut swiftly, followed by a significant dip in viewing figures. Bad news.

And the audience cheers and boos depending on how successful your zombie slaying is going. It's all wonderfully surreal and atmospheric. Of course, you're not expected to venture into these situations without suitable protection. A variety of weapons, from basic handguns to machine guns, shotguns, crossbows and more futuristic armament, are made available.

Aiming is achieved via a laser sight – a good thing since your enemies are only truly beaten when their heads are shot off their decaying bodies. There are opportunities to change into Deva, Dave's alter ego, who can fly and fire bolts of energy from her hands. Her task is to trap and send your opponents' souls back to hell. Again, this offers gameplay variety.

With around 100 locations to explore (including exterior venues), good camera work (including some occasional 'Matrix'-like panning effects after killing a foe), surprisingly intuitive controls and the inevitable polishing and tweaking that should occur before the game is released, *Devil Inside* is a promising concept.





Jack T Ripper hosts the television show (top) which transmits a live feed from the camera, being carried around by your brave companion

CRAZY TAXI

Hugely entertaining and addictive in arcade form, Sega's superb DC version of *Crazy Taxi* is nearly here. **Edge** wonders if an extra city and mini games are enough to disguise its decidedly lightweight nature









Dual layered highways (top), secret passages (above), and train tracks (right) are all valid routes

All of the shots on this page (apart from the mini-games) come from the new city designed exclusively for the DC version. It's an absorbing level



Another DC-only feature is the selection of different camera angles, which includes this surprisingly playable view

A near-finished Dreamcast version of Sega's Naomi-powered coin-op is worthy of another appearance in **Edge**. And fans of the arcade will be pleased to discover that the conversion appears to be spot on.

The entire San Francisco-esque play area found in the coin-op is impressively recreated, polygon for polygon, and the environment is one of the more solid-looking examples to grace a console. Any criticism at this stage would have to focus on the game's speed. Sometimes things move a little too quickly (an indication that the game has yet to be fully tweaked) and the proceedings can degenerate into a time-consuming and erratic (not to mention irritating) game of bumper cars.

But no matter how good a coin-op conversion is, there is always the risk that the home experience will suffer from the three-minute gameplay requisite of the coin-op world. Simply put, arcade games can be shallow beasts. And *Crazy Taxi* undeniably falls into this category.

Acknowledging this, however, Sega has added a whole new city for virtual cabbies to race around, ferrying impatient customers about. Unoptimised in **Edge**'s preview version (resulting in chuggy update), this Dreamcast-only area is easily as expansive as the original arcade environment and retains the latter's bay area feel, mixing vast open patches with the typically imposing nature of US downtown office blocks. Its street geography is trickier, too – there are plenty of dead-ends, railway crossings and long winding roads with few intersection points, so familiarisation with the layout is more significant.

Don't be afraid to explore your surroundings, though. Provided you avoid running head-on into a train, shortcuts are available through the railway and subway systems.

As well as the extra play area, several bonus games are included. Nine are initially available, and a further seven open as you complete the challenges. These can be anything from jumping as far through the air as possible (coincidentally, a similar mode exists in *Beetle Crazy Cup*, see p28), achieving a number of powerslide manoeuvres, bursting balloons, jumping through a precarious course, or playing giant ten pin bowling by sliding your car into the pins. Naturally, a strict time limit is imposed, making some of them supremely tricky.

So far, so so. Review code is exected to arrive soon, and hopefully it will quash fears that *Crazy Taxi* may still only provide a rather lightweight arcade experience, in spite of the Dreamcast additions.

Format: **Dreamcast**

Publisher: **Sega**

Developer: **In-house**

Release: **February (Japan)**

Origin: **Japan**







Three of *Crazy Taxi*'s 16 DC-only mini-games. While their addictive nature keeps you persevering for a while, don't expect to return regularly



Format: PlayStation2

Publisher: Namco

Developer: In-house

Release: March (Japan)

Origin: Japan

TekkenTagTournament

It will be the showcase title for PlayStation2. It uses the most accomplished 3D technology in existence. And it features some of the most recognisable characters in gaming. Kimoto Masahiro is taking no shortcuts with the biggest beat 'em up ever





The tag concept has been around for years, of course, having famously been developed in *King of Fighters*, but Namco is pushing the envelope



Tekken 2 versus *Tekken 3*? Sure. But when a character has been in multiple games, expect to see only the latest version appear in *Tag Tournament*

Taken from the arcade where it existed on the competent, although technologically unimpressive System 12 arcade board, *Tekken Tag Tournament* has been completely rebuilt to take advantage of the most advanced 3D technology ever constructed for entertainment purposes.

With a fourth-generation fighting engine behind it and the most familiar heroes and anti-heroes in gaming, it promises to be the title on display when PlayStation2 launches on March 4 in Japan. Can a game this hyped possibly live up to expectations? Namco certainly believes it can, and given the company's sound PlayStation and Dreamcast track record, it's difficult for **Edge** to disagree.

Behind the scenes

Project director **Kimoto Masahiro** knows a good thing when he sees it. "PlayStation2 expands the limits of hardware performance and makes possible what could not be achieved before," he exclaims when asked about the time he's spent working on his first game for Sony's supersystem.

Optimistic? Maybe, but with the help of his team, he's managed to create what could be the technological and visual showcase for the fledgling platform – surpassing the graphical quality of any other system, home or arcade – with less than a year working on the hardware itself.

Fortunately, with a team approximately 50 per cent larger than any previous *Tekken* team, and with many team members clocking five or six years' experience on the series, the deck has been stacked somewhat in his favour. But he knew they had their work cut out.

"We did the basic study of PlayStation2 during the development of the arcade version and got down to the home version right afterwards," says Masahiro-san. "It might have been





The *Tekken* series is renowned for its dramatic throws. Here, Xiayou flaunts a move that not only knocks you down, but humiliates as well



The majesty only truly comes alive when you see it running at a constant 60fps, but this sequence gives a taster of *TTT*'s action



Swaying blades of grass and cheering onlookers reveal how much detail Namco is packing into the game. Touches like this are the difference between good and great

much easier to convert the arcade version as is, but we didn't want to take the easy way out. We look at this as a great challenge."

Asked what new features will make it into the PlayStation2 version of *TTT*, Masahiro-san smiles: "The number of polygons allocated to models and other graphics elements is increased dozens of times, which enables us to render smooth skin, physical characteristics, and even expressions. Joints and physical build can be rendered almost identically to human detail, producing amazingly natural movements."

The result of this increased detail is a fighting game that must be seen in action to be appreciated. The screenshots here cannot do the game justice when every action – even in an object as tiny as each blade of grass – is a work of art. Witness the flames in the background of one of the downtown levels, or the fighters' distorted reflection in a street puddle.

But are graphics enough to justify a new system? Masahiro-san weighs in with a yes. "I think that the PlayStation2 expands the playability and concept of *Tekken* with its powerful graphics engine," he says. And even if you were fortunate enough to get glimpses of the *Tekken* tech demo shown at the PlayStation2 announcement, you may be in for a surprise: "The programming staff say the tech demo released before might use as little as ten per cent of the PlayStation2's power," Masahiro-san confides.

"Because of the capabilities of PS2 hardware, there is a lot that we can do that would not be possible on any other system"



Team selection is a process that should involve style consideration

The last great battle

For those who didn't catch the System 12-powered arcade machine, the gameplay in *Tekken Tag Tournament* may also raise an eyebrow – especially if you're familiar with the first three *Tekkens*. While the basic control and feel of each character remains, the big difference is the jump from one-on-one combat to the concept of tag-team matches in which players can switch between characters at will.

As well as the dozens of moves each fighter has, players can switch back and forth between characters mid-combo. This creates super-powered combos



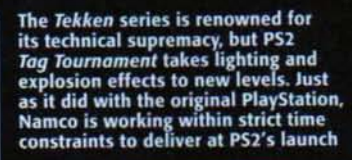
The characters may be old, but they've never looked quite like this before. At times the quality is up there with prerendered *Tekken* art











The *Tekken* series is renowned for its technical supremacy, but PS2 *Tag Tournament* takes lighting and explosion effects to new levels. Just as it did with the original PlayStation, Namco is working within strict time constraints to deliver at PS2's launch

with the benefits of both your chosen team mates. Why Tag Team instead of the established format? Explains Masahiro-san: "The characteristics, tactics, and playing style of each player can be reflected more in this game.

"How to make use of a partner with another character's fighting style is the key to victory or defeat." With hundreds of combinations available between the 36 characters (every fighter ever featured in a *Tekken* game), and several play styles for each character it'll be a challenge to get around to experiencing half of what's on offer.

Unfortunately, since the game features so many characters from different time frames, the storyline has been sacrificed entirely for this version (remember all of the nonsensical endings?). The team is also working hard to include plenty of extras exclusive to the PS2 version. "As you can imagine, these are features we want to keep secret for the moment," confides Masahiro-san. "However, I can say that there is a lot that we want to put in. Because of the capabilities of the PlayStation2 hardware, there is a lot we can do that would not be possible on any other system."

Namco developers have a habit of slipping in fighters from other series (like Yoshimitsu in *Soul Calibur*). Masahiro-san claims no new characters, above and beyond those featured in the arcade are planned at the moment: "But I don't want to limit our options."

A perfect finish

Seeing is believing, and, if beat 'em up fans were not already excited about this particular example, they must be champing at the bit now.

With only a month to go, Masahiro and his team have their noses to the grindstone in an attempt to get as many features into *Tekken Tag Tournament* as they can before it ships.

In Namco, Sony has the perfect PlayStation2 software partner: experienced, technically adept, and flamboyant. In *Tekken Tag Tournament*, it has the perfect showcase title: accessible, brash and full of glitz.



***Tekken Tag Tournament*'s graphics offer an unprecedented amount of background detail, surpassing Dreamcast *Soul Calibur*. No mean feat**



You've no doubt seen the moves before, but never animated like this. And the updated models make a significant difference

Alone

After a four-year sojourn, the parent of survival horror is resurrecting its nightmare for an audience thirsting for fresh thrills. Edge travelled to Paris to find out how



Format: **PS/PC/DC**

Publisher: **Infogrames**

Developer: **DarkWorks**

Release: **October**

Origin: **France**



The game is getting frightening. Animal fear is the new sensation from developers. Aside from adrenaline rushes and RSI, *Half-Life* plus Capcom's survival horror duo *Resident Evil 2* and *Dino Crisis* are taking fright junkies by surprise and the charts by storm.

Does this mean it's easy to spook gamers? No, it's getting harder every day. Will a game with a sound reputation for frightening its victims be able to pull the thrills anew? No more than '50s B-movie horror flicks can terrify the spoilt DVD generation. Years ago, the venerable *Alone in the Dark* invented a genre. Now it needs a makeover.

Feel the fear

Edge is frightened. "You are a typical Englishman, too ignorant to learn even a few words of the language of your closest neighbours," the taxi driver mouths.

At least, he might be. One **Edge** writer is trilingual. This reporter finds croissant more than a mouthful. Somehow it comes to light that the prebooked taxi driver hasn't found **Edge**'s photographer.

His plane is over an hour late and, after another hour of being pushed towards anyone the driver believes looks English, both parties decide to forsake him. Survival horror indeed. Another hour and a phone call from a hotel in Paris reveals the snapper safe and sound, feet up in front of the TV in the west of England. The hotelier doesn't understand our explanations. Nor do we.

France should be a walkthrough. It's not. French publishers have stolen away British development like body snatchers. Infogrames alone has taken Ocean, Gremlin, and Reflections in the last 18 months. Among Infogrames' few homegrown hits, one stands out. *Alone in the Dark* and, to a lesser extent, its two sequels demonstrated environments realistic enough to make you jump instead of smirk.

For once, the Japanese had to take a cue from Europe, with Capcom stealing more than a few pages from France's horror story. Now, Infogrames has realised it's sitting on a potential gold mine. More than four years after **Edge**'s *Alone in the Dark 3* review alluded to a follow-up, it's finally happening, in a converted clothes factory in Paris, the home of startup studio DarkWorks.

Given the rude health of the French games industry, it's fitting that DarkWorks already has 40 developers working on a game with production values as ambitious as anything Japanese. Some have come from French animation schools and special effects houses. But others are Parisians returning home from UK companies, such as Codemasters and Reflections.

It used to be hard to get decent games work in Paris, but that's changing. Infogrames has given DarkWorks the cash to recruit the best, and the name *Alone in the Dark* is attracting people from everywhere. DarkWorks has expanded supernaturally fast. The corridors are blocked with ceiling-high rockfalls of discarded computer packing. You half expect a monster to come lurching out each time you turn a corner.

Francophobia

With rumpled black suits and the soft, monotonic voices of Left Bank intellectuals, the founders of DarkWorks simply couldn't be more French. CEO **Antoine Villette** cuts an imposing figure. The much shorter **Guillaume Gouraud**



Photography: Martin Thompson

From left to right:
Pascal Luban game designer
David Rochedieu lead programmer (PS)
Antoine Villette manager/scriptwriter
Mathieu Lauffray lead artist (characters)
Guillaume Gouraud cofounder/art director
Claire Wendling lead artist (creatures)



("It's just William in French") is not the inventor of the shading technique but is head of DarkWorks' art department.

The pair founded DarkWorks after running a team of contract programmers. The work funded an original Victorian sci-fi action game which left publishers unconvinced. Some had similar titles in development – a few feared the excesses of French development. But Infogrames was impressed. It didn't want the action game, but could DarkWorks make a sequel to one of the best French games ever? "There are not many projects like *Alone in the Dark IV* in the world," says Gouraud. "Having the means to make this adventure game, as well as the freedom, it's incredible."

DarkWorks wasn't founded to program games to order. It wanted to express its creativity. Happily, so did Infogrames. "They said 'The name is *Alone in the Dark*' and the name of the hero is Edward Carnby. The rest belongs to you'," muses Villette.

The first rule among *Alone in the Dark*'s developers is that you don't talk about *Alone in the Dark*. Finding out about DarkWorks' debut game proves a challenge. Not only is the DarkWorks' founders' English less powerful than their artistic ambition, they're also reluctant to talk about the specifics of the game.

Coders and artists have only been at work since February. Piecing together the *Alone in the Dark IV* puzzle from quotes, prerendered scenes and the odd demo feels rather like playing an adventure in itself. The project was born about 18 months ago, as an 800-page design document created by Villette. This detailed how the game would play out, what players would find in each room, the beasts, as DarkWorks rather sweetly calls the game's assorted macabre hellspawn, and the story.

Because the plot is so important to the game, DarkWorks will only reveal the barest details. A friend of Edward Carnby has disappeared on a mysterious island while searching for lost stone tablets for a wealthy benefactor. As Carnby, the player goes in to find him, and discovers a fully working island with several human inhabitants, and a mansion with a terrifying past.

"The enigmas of the adventure are so incorporated with the story that if you reveal the story, you reveal the game," argues Villette. "The island itself is almost a character. You are going to understand its past, what's behind it, and learn its terrible history."

The developers stress that *Alone in the Dark IV* will be as much an action as an adventure game and that the adventure side will be mercifully free of antiquated sliding puzzles or inventory tricks.

Instead, like Holmes, you'll work out what's going on around you, using clues like paintings, conversations and scraps of knowledge to solve what Villette calls 'analogical puzzles' – comparing similar situations to find mutual solutions.



Contrary to most survival horror games, the lion's share of the action in this new *Alone in the Dark* takes place in exterior locations

Floating heads, fixed grins

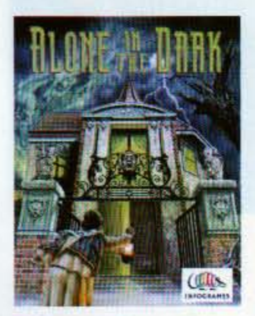
While the adventure remains an enigma, the action and engine are straightforward. The first revelation is the use of prerendered backgrounds – despite an **Edge** review four years ago that anticipated the series would swiftly move to realtime 3D. DarkWorks is unrepentant.

"When you're working on games like this, which are really trying to be like movies, fixed backgrounds are richer," argues Gouraud. "Very few games manage a good realtime camera. Maybe *Zelda* did, maybe *Silent Hill* did in certain parts, but using a fixed camera still gives you very interesting gameplay. I wouldn't even be surprised if PlayStation2 still has games with prerendered backgrounds."

"Realtime backgrounds put what you are doing at the centre of the action," adds Villette. "We want action but we also



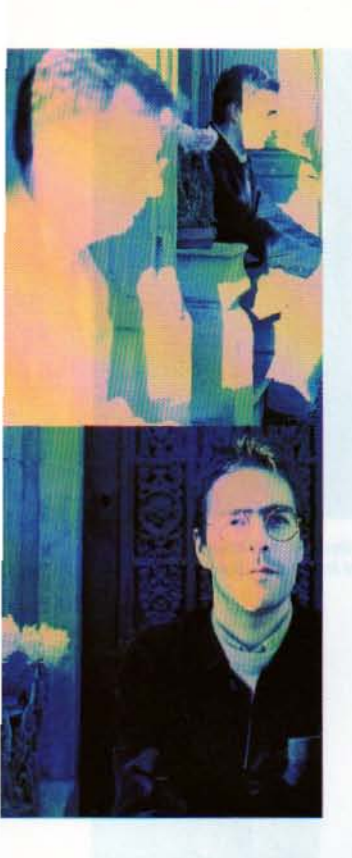
Use of prerendered backdrops ensures even the PS version looks glorious







Frederic Raynal's original *Alone in the Dark* appeared in 1991, and was followed by Franck de Girolami's second instalment in '93, and Laurent Paret's part three in '94



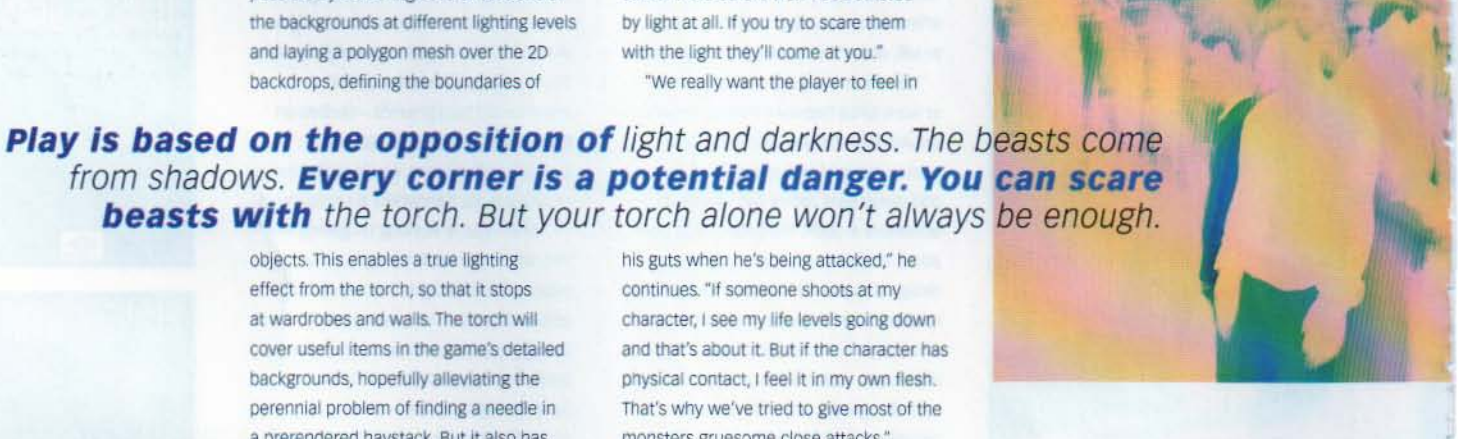


want an atmospheric game. One thing is 'what is the story?' and another is 'how do you tell the story?' With fixed cameras and prerendered backgrounds we have a mastering of how we can tell the story."

Don't tell Infogrames, but Gouraud proves they're not scared of technology by sneakily showing **Edge** a prototype realtime firstperson game. It's not *Quake III: Arena* but it's certainly no slouch. While some will be surprised at DarkWorks' decision to stick to prerendered backgrounds, **Edge** applauds anything putting gameplay ahead of keeping up with the geeks. One day, games won't be measured by technology any more than movies are. (Think what 'The Blair Witch Project' did with just a handheld digital camera.) That time has not yet arrived, but simple technological parity with rivals need be no disadvantage, particularly on a mature platform such as PlayStation.

DarkWorks has introduced one major technological advance which is central to the game. Aptly, *Alone in the Dark IV* will be the first console horror game to use light well. Carnby can explore in darkness, he can flick on the lights, or choose to use a torch.

It's a neat and convincing trick, made possible by rendering several versions of the backgrounds at different lighting levels and laying a polygon mesh over the 2D backdrops, defining the boundaries of



Play is based on the opposition of *light and darkness. The beasts come from shadows.* ***Every corner is a potential danger. You can scare beasts with*** *the torch. But your torch alone won't always be enough.*

objects. This enables a true lighting effect from the torch, so that it stops at wardrobes and walls. The torch will cover useful items in the game's detailed backgrounds, hopefully alleviating the perennial problem of finding a needle in a prerendered haystack. But it also has more exciting potential.

"The gameplay is based on the opposition of light and darkness, and even the weapons that you find use light as projectiles," reveals Villette. "The beasts come from shadows – every corner is a potential danger. Lights can stress shy beasts. You can scare them or block them with the torch. But most of them also cast a shadow and your torch alone won't always be strong enough."



Run, don't walk, from The Sponge

The mind of **Pascal Luban**, head of game design, is a hive for DarkWorks' dispersed artisans. He's also known as The Sponge for the way he absorbs DarkWorks staffers' ideas. Formerly a corporate planner for Panasonic France, he discovered games while putting together the-launch-that-never-was for 3DO in France. Fast-talking and confident, he's clearly in his element with the enormous complexities of a modern videogame and discussing the finer issues of gameplay. Right now he's got beasts on his mind.

"We've really worked to give the monsters individual characteristics. The player needs to work to understand that. You will encounter many types, and you will have to learn how to deal with each one," he gasps, presumably via some circular breathing technique. "You might have a monster that doesn't like ambient light," he continues rapidly. "If you turn on the light, the monster will feel comfortable and go back to its lair. When you turn off the light, the monsters will come back.

"Perhaps you try to shoot them in the back and you discover they attack you, so you've learned with these guys you should just turn off the light and do nothing else. Okay. That's the kind of learning we want. Other monsters you can scare away just with the flashlight, but of course they'll try and sneak around you. So you have to be careful. And others won't be bothered by light at all. If you try to scare them with the light they'll come at you."

"We really want the player to feel in his guts when he's being attacked," he continues. "If someone shoots at my character, I see my life levels going down and that's about it. But if the character has physical contact, I feel it in my own flesh. That's why we've tried to give most of the monsters gruesome close attacks."

Luban's enthusiasm is infectious, and he seems just the man to tackle that 800-page design document. In essence, an adventure can be reduced to the contents of locations at different times – monsters, items and clues – and the player's various routes through them. Conjuring up the former is done in step, beginning with illustrations that are passed on, via Luban, to 3D artists, whose rendered scenes are finally populated with the work of animators and the sounds of the musicians, by the programmers, who stitch the whole lot together.

But to accomplish the latter Luban has gone to unusual lengths. He's created a series of graphs which anticipate the threats that the player will face at each

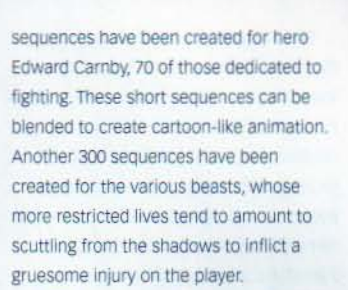




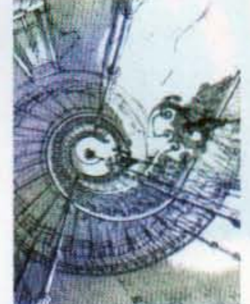
The backdrops may be, in essence, 2D images, but wireframe meshes exist for each, allowing Edward Carnby's trusty torch to play convincingly over surfaces











DarkWorks has seven full-time illustrators working to create base images for the 120-plus locations. These are then taken by 3D artists for inclusion in the game

place and point in time, and how difficult it will be to respond, depending on the uptake or spending of ammunition and medical supplies, or the route taken through the game.

Such a level of forethought is extremely unusual. Legends such as Peter Molyneux joke that their game design fits on a piece of paper. After all that, the game is built by refining and playing prototypes for thousands of hours.

Luban wants to add some method to the madness. "There is only one Peter Molyneux and that method works for him because he is Molyneux," he says, laughing. "Relatively speaking, game design is a new field and we're all still inventing our tools. Programmers have libraries and have been doing this for 15 or 20 years. Their way of working is settling down."

The art of gore

DarkWorks has seven full-time illustrators producing pencil-and-paper sketches of the game's 120-odd locations from every desirable angle. It's in their office that the task of translating word to game begins.

Having so many in-house 'low-tech' artists is a luxury few western developers have afforded, but Gouraud calls this a vital 'DarkWorks speciality'. Free of technological constraints, the illustrators can refine a location much more rapidly and efficiently than a 3D artist.

They've created hundreds of black-and-white sketches – often quite beautiful. But these aren't simply fanciful visions. Working closely with Luban, the artists begin to outline gameplay in the drawings, including scale, player paths through each scene, and interactive items. The 3D artists then use the detailed drawings as straight blueprints.

DarkWorks' art department is also home to a full-time painter. Every portrait or painting in the game can be zoomed in to reveal a scan of the real painting and clues. But it's the studio's 15 computer artists' more traditional 3D techniques that start to build the game. The sketches travel via the office of Luban to half a dozen talented 3D artists, who typically take three weeks to model, texture and render every location from ten or so camera angles.

"We wanted to give the PlayStation its last, most beautiful game," smiles Gouraud. Looking at these incredibly lavish scenes (generated by 500Mhz PIII bi-processor PCs with 500Mb of RAM from up to 2m polygons in *3D Studio Max*) it's not hard to see what would have suffered if DarkWorks had gone realtime.

As *Myst*'s creators at Cyan argue, immersion in an adventure game often comes more capably through a consistent and realistic, if static, environment than through a jerky, bare one.

Even the torch lighting techniques leaves plenty of CPU power spare and thus the animators have the polygons to create fluid animation. More than 200 sequences have been created for hero Edward Carnby, 70 of those dedicated to fighting. These short sequences can be blended to create cartoon-like animation. Another 300 sequences have been created for the various beasts, whose more restricted lives tend to amount to scuttling from the shadows to inflict a gruesome injury on the player.

There's a lot of imagination behind these beasts. There are knee-high lizards who hop along behind the player, pulsating jellyfish which block corridors, man-sized bipeds with mouths like the back of garbage trucks, and serpents that whip through the island's waters. Their delicate, disgusting textures were inspired by the worst sort of creatures you'll find digging in your garden or dredging the ocean's depths. Gouraud shows slides of kangaroo embryos and the like, and **Edge** makes its excuses and moves on.





The torch is the most fundamental component in the game. Scanning rooms for clues in this fashion gives *Alone IV* its unique atmosphere









Carnby will use light-based weapons, but more traditional forms of firepower are also at hand (main). Though these shots do not reveal enemy creatures, DarkWorks is spending a great amount of energy creating a raft of distinctive varieties

The 11 human characters inhabiting the island remain a mystery. One high-level polygon artist working on FMV and PC models (the animations will be re-rendered for the PC and Dreamcast versions with triangular instead of quad polygons, and higher resolutions) revealed some striking yet nameless faces, but DarkWorks is keeping their role secret. All Villelte will say is: "They have their own lives, their own objectives. Sometimes you'll be in their way. That won't be a good thing for you!"

Things that go bump in the night

Like all horror games, audio is a crucial role in *Alone in the Dark IV* and the final stop on **Edge**'s exploration of DarkWorks is the music and sound effects department. Early versions of the soundtrack are somewhat surprising – despite the game's almost gothic milieu, it veers from the expected choral chants to industrial guitars redolent of Nine Inch Nails.

The composers point to movies such as 'The Matrix', 'Scream', 'Nikita' and 'Fight Club' – all using non-symphonic backdrops to good effect. It's testament to the power of sound that where a monster mauling Edward in an out-of-context animation snippet merely provokes nods of admiration, the equivalent audio file has everyone recoiling in horror.

All the samples are newly captured from the real world, which the wide variety of locations in the game makes especially difficult. Imagine recording enough samples for the hero's footsteps to cater for the wide variety of terrain. It must prove exhausting.



The end

It will be fascinating to see whether DarkWorks can recapture the survival horror crown for Europe, especially as some would argue that Capcom has bled it dry. But although *Alone in the Dark IV* looks technologically similar to Capcom's titles, it's actually a different story altogether.

"People could get sick of horror adventure games if they rely only on fear," contends Gouraud. "But fear and horror plus a story produces something much richer. I think *Alone in the Dark IV* will mean the end of fear-only games."

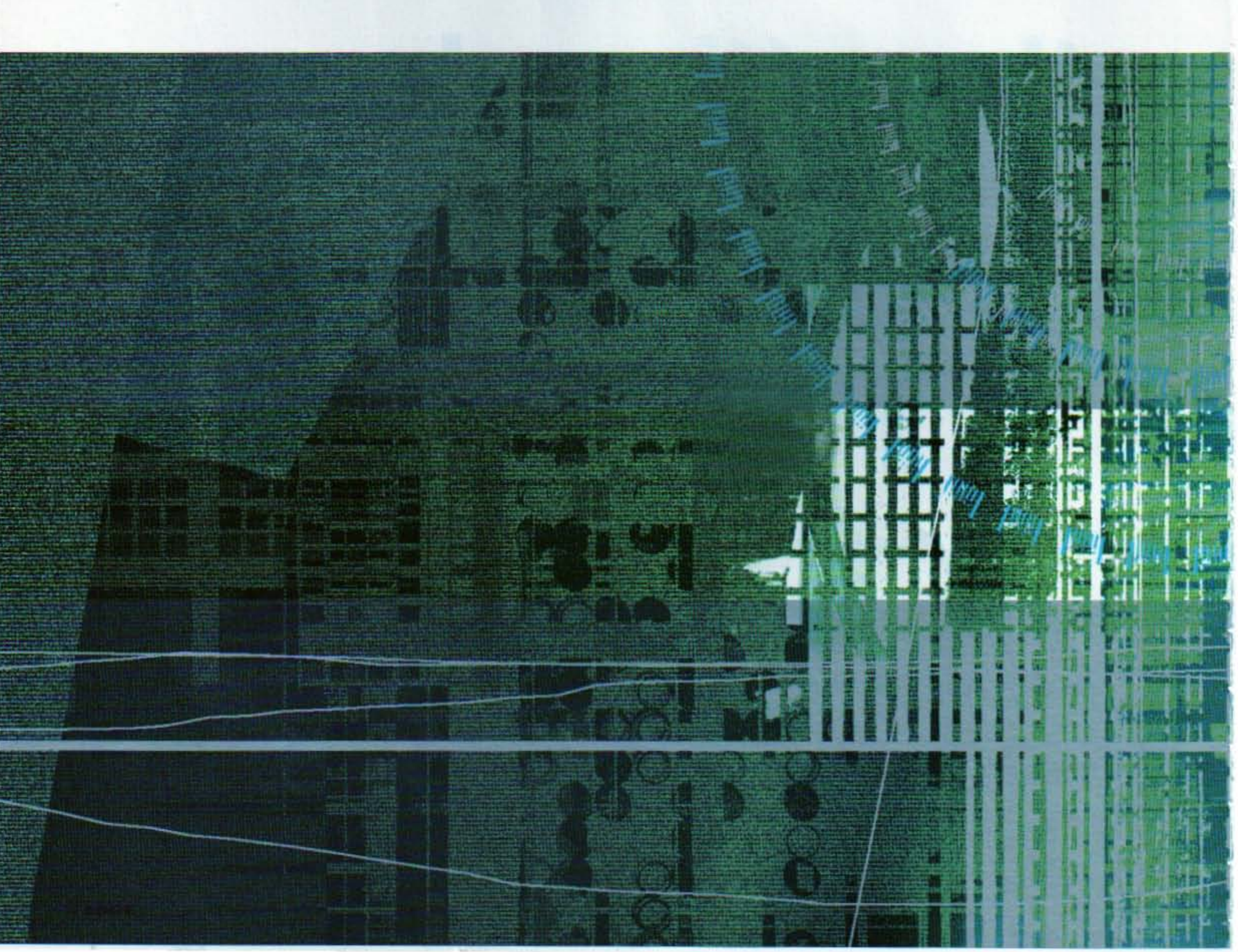
Villette has a useful metaphor. "Ghost trains are funny for one ride, but after an hour it's going to get boring," he says. "Everyone is going to break the windows and shout 'boo' in the dark. We have to find something deeper.

"There have always been movies in the horror genre and there will always be horror games," he continues. "Fear is one of the most powerful emotions you can feel. There is love and fear – and what else is there?"



Naturally, the PlayStation version uses the simplest graphics; the characters in the DC and PC versions will be re-rendered using triangular polys at a higher res

The games of



the year

Looking back, the last 12 months hardly represent a vintage year for gaming. Already, however, it's clear that the remainder of 2000 holds a wealth of potential. Over the next six pages, **Edge** takes a platform-by-platform look at the software preparing to devour social lives

Littered with an endless stream of unimaginative sequels, a black hole in the place of originality, and disappointing levels of quality control, recent times have spelled bad news for gamers seeking true landmark experiences.

In some respects the mainstreaming of the pastime hasn't helped, fostering, as it has, an environment in which 'me too' developers and publishers have burgeoned, squeezing out the kind of daring, innovative and ingenious software that once made videogaming so rich.

But as 2000 really gets into gear, you have every right to be optimistic about the future. Granted, you'll see the biggest cash being pumped into sequels, but many of these reworkings will be delivered minus the dollop of cynicism that so often comes as standard.

There will be many more games released this year than feature over the following pages, but these are **Edge**'s highlights. By December, you'll be able to see just how right (or wrong) these picks are...

PC: the evolution

The continuously evolving PC provides a relative safe haven for inadequate developers happy to hide their inadequacies behind the latest poly-crunching 3D cards, but its open format allows more risks to be taken than in any other environment, which is why it has played host to some of the world's most innovative endeavours. And the most whacked-out are rapidly approaching...

Black & White EA | Lionhead Studios | April | UK



As likely to hit its deadline as previous Molyneux projects and more ambitious than all of those illustrious titles put together, the world's first god RPG could be something of a landmark in gaming. Every time **Edge** views the game, aspects which previously seemed far-fetched or technically way ahead of their time appear, in real time. And they're accompanied by a fresh set of extravagant claims, of course.

Republic Eidos | Elixir Studios | Late 2000 | UK



A rollicking 3D engine it may have, but Elixir's impressive technological aptitude is only of consequence for what it can allow the developer to do in terms of gameplay. Expect a game with its roots firmly stuck in the Molyneux school of game design. A million individual characters living within an astonishingly detailed city should deliver more complexity and scope than any strategy title to date. (Don't be shocked if it misses 2000.)

Grand Prix 3
Microprose | Geoff Crammond | March | UK



Geoff Crammond's latest will be the most detailed F1 game ever, of that there is no doubt. Though 3D-accelerated shots are not yet released, expect the visuals to match the dynamics for authenticity. Accessibility is assured, courtesy of the developer's wonderful implementation of driving aids, which do surprisingly little to spoil the game's impeccable playability.

Halo Take 2 | Bungie Software | Autumn | US

Delivering an unprecedented level of realism and pushing graphical boundaries to current limits, *Halo*, from *Marathon* developer Bungie Software, promises to revolutionise action conflict games. Its open structure and cooperative multiplayer modes should ensure some of the most enthralling, team-based strategic videogaming since *Team Fortress*. Cult appeal is assured, possibly followed by mass-market, *Quake*-style hysteria.



Colin McRae Rally 2 Codemasters | In-house | June | UK



The PC is the only one of the two proposed formats (though **Edge** suspects a Dreamcast version will be in the works) where *Rally 2*'s 32bit textures and WRC models constructed of 3,300 polygons can be seen as you play the game using a force-feedback steering wheel.

Galleon Interplay | Confounding Factor | Autumn | UK

Ex-Tomb Raiders Paul Douglas and Toby Gard have been leading their crack team at Confounding Factor (in between collecting awards and speaking at BAFTA conferences) in producing what should be the most engaging tale of piracy since the last *Monkey Island*. But it won't be by-the-book stuff, as films such as 'Sinbad and the Eye of the Tiger' have influenced production, which should result in encounters with a raft of Harryhausen-style adversaries. This deserves to succeed if only because it mines a previously ignored seam.



Team Fortress 2: Brotherhood of Arms
Sierra | Valve | Summer | US



For a while now *Half-Life: Team Fortress* has been *the* cooperative multiplayer experience, but there is always room for improvement, and this sequel will oblige with additional team roles (the commander is able to control his team via realtime voice commands), unprecedented animation for a title of this type, fascinating attention to detail, and 20 missions set in a WWII scenario.

Hitman
Eidos | IO | May | Denmark





Shown at ECTS and hardly seen since, *Hitman* has you reincarnating the role of the eponymous assassin in a detailed and highly realistic polygonal world. You undertake a variety of missions, calling on as much cerebral as ballistic power. Stealth is naturally of the essence – you can, for example, eliminate obstacles and hide their lifeless bodies to minimise your chances of compromising your mission.

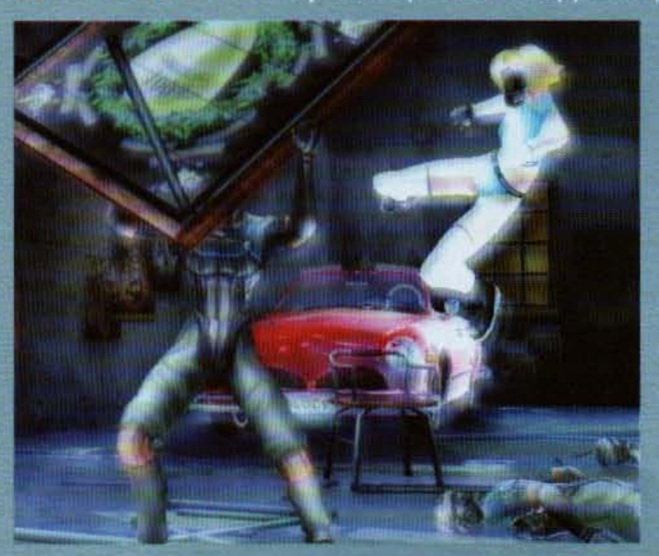
Commandos 2 Eidos | Pyro | Summer | Spain

The highly captivating, sprite-driven WWII RTS returns with phenomenal visuals, animation and (hopefully) the same level of playability as its seriously successful predecessor. Few games in any similar genre prove as rewarding as when everything goes according to plan following an expertly planned mission. Action players beware – this is one for the master strategists.

PS2: getting emotional?

Few, if any, of the initial wave of 128bit PlayStation titles will provide anything more advanced than existing experiences with upgraded visuals. That's hardly a hiccup-curing revelation. As developers battle to get to grips with the nuances of Sony's new hardware, improvements – aesthetics and composition – are likely to follow. But the promised emotion is a long way off yet.

The Bouncer SquareSoft | Dream Factory | March | Japan



SquareSoft is promising a whole new style of gameplay. Playable versions are yet to be made available, so **Edge** holds a smattering of suspicion, but unconditional intrigue. Of all the PS2 titles shown at last autumn's Tokyo Game Show, *The Bouncer* continues to impress the most, both visually and in terms of content. Expect the impressive technical achievements to be further enhanced by the time the game launches alongside Sony's new hardware.

Oddworld: Munch's Oddysee
Infogrames | Oddworld Inhabitants | Autumn | US



The third instalment in Oddworld Inhabitants' popular series, *Munch's Oddysee* is an ambitious blend of several genres. For the first time, the action occurs within a real (and extensive) 3D environment and the main protagonists are not the only ones to receive attention from players. Throughout the game the other creatures also feature prominently and a significant amount of time is spent dealing with them.

Dark Cloud
Sony | In-house | March | Japan



Another of the more interesting Tokyo Game Show PS2 features, Sony's *Dark Cloud* action RPG allows you the opportunity to create your own world before zooming right in for personal exploration. How this fits in with the overall game remains to be seen, but as an early technical demo of PS2 power it's convincing stuff.

Onimusha Capcom | In-house | Summer | Japan

It was initially destined to grace the 32bit scene as a PlayStation title, but Capcom quickly realised that *Onimusha*'s concept deserved better than five-year-old technology. Superior visuals combined with battles featuring thousands of samurai warriors and Capcom's usual strive for excellence make this one of the most promising PS2 projects.





Tony Hawk's Skateboarding 2 Activision | Neversoft | Late 2000 | US

There can be few who could resist the opportunity to experience the most of enthralling of all urban sporting activities within a far less blocky environment than the one offered by the PlayStation's version. Enter Sony's 128bit technology to power this most welcome of sequels. Larger, more solid levels, featuring a greater variety of elements and available stunts, should make this is a must-have title.

PS: still standing

With an installed user base hovering around the 70m mark, the ageing PlayStation isn't going to fade away overnight. But it's fair to say the format has seen its halcyon days. As the world's premier developers move on to newer technology, it remains to be seen what the reserve wave of codeshops is capable of producing, but PS owners can at least look to the following prospects

Spider-Man **Activision | Neversoft | June | US**

Legions have tried and failed miserably to do justice to the super-rich world of Marvel Comics in videogame form, so much is expected from *Tony Hawk's Skateboarding* developer Neversoft and its attempt to being the world's most popular superhero to life in 32bit. The core action elements appear soundly in place – Neversoft now needs to wrap convincing storylines and events around them.

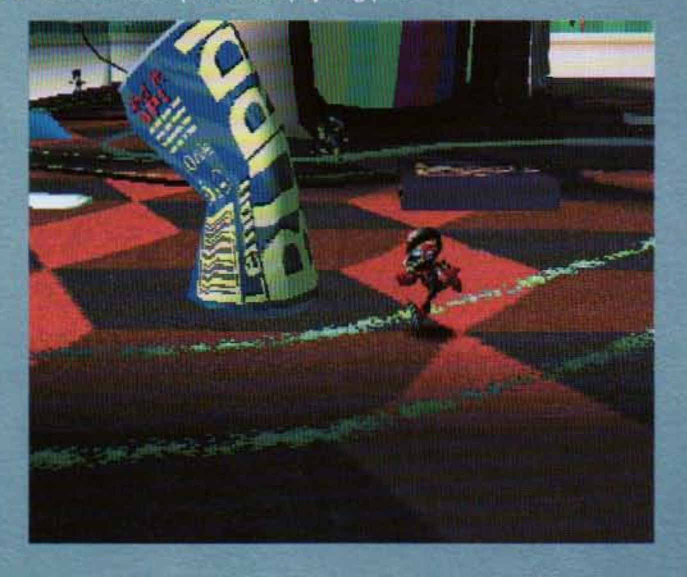


Driver 2 **Infogrames | Reflections | Summer | UK**

The sequel to one of last year's commercial hits is due to make a final appearance in 32bit form (a PS2 version will follow). In addition to the fine dynamics offered by its predecessor, **Edge** hopes this sequel introduces more mission diversity and capitalises on the massive gameplay potential in the game's structure.

Micro Maniacs **Codemasters | In-house | Spring | UK**

The latest in one of the most enjoyable multiplayer series around, Codemasters' decision to introduce diminutive bipedal entities instead brings with it some refreshing gameplay opportunities. Dig those multitaps out and prepare to enter the competitive world of eightplayer racing.



Final Fantasy IX
Square | In-house | Spring | Japan

Considering the ninth instalment approaches (and more than likely to be the last to grace PS1), you have to wonder whether the series is perhaps a little ill-titled. Still, taking all of its predecessor's technical achievements a step further, expect another beautifully crafted epic-sized adventure for anyone prepared to take two weeks off work to finish the damn thing.

Speedball 2100
Empire | The Bitmap Bros | Spring | UK



The long-awaited sequel is set to appear as a PS-only release, and could be one of the platform's biggest games as its twilight years take hold. **Edge** will report in full on this game next month.

Vanishing Point
Acclaim | Clockwork Games | TBA | UK

It's astonishing that despite the inspired racing experience that *3DO Need For Speed* delivered, no one (other than EA's tiresome attempts at continuing the series on subsequent formats) has managed to create a thoroughly playable racing game set among civilian traffic (Konami's *Thrill Drive* coin-op excluded). With *Vanishing Point*, Clockwork certainly looks like setting the record straight.



Dreamcast: full steam ahead

Thirdparty support continues to ramp up despite console sales running behind forecasts, but hardcore fans are looking to Sega itself for some of the most juicy Dreamcast software. With word from Japan indicating that an update of *OutRun* is imminent, and that more multiplayer *Chu Chu Rocket*-style games are in the works, 2000 should be the best year yet for Dreamcast fans

Shenmue **Sega | In-house | Late 2000 (UK) | Japan**



One of the most expensive and graphically impressive videogaming projects to be undertaken, Yu Suzuki's *Shenmue* is an immense game, capable of keeping players glued to their screens for days. Given the 100 characters and hours of speech, a western translation is likely to take its time. But you just know it'll be worth the wait.

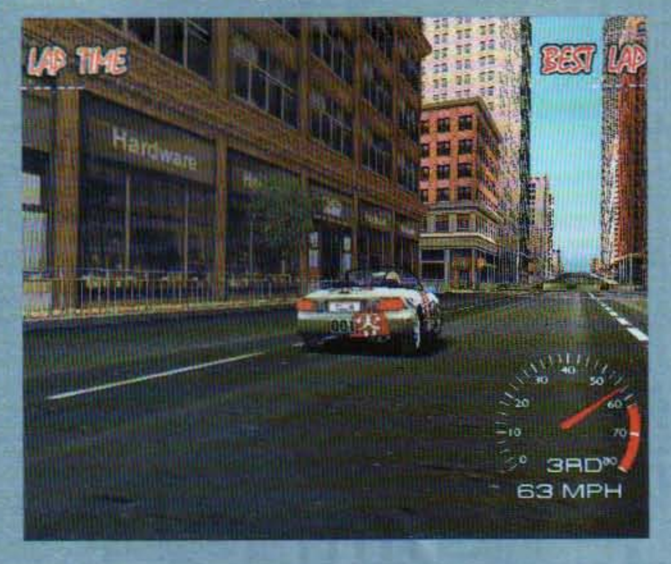
Sega GT: Homologation Special
Sega | In-house | Spring | Japan



Reports from Japan suggest that the car-obsessed development team has included a stupidly comprehensive tuning system (more so than *GT2*, by all accounts), though with only about 100 Japanese-only vehicles on offer (the game is based on that nation's GT series), Sega has to ensure the playability is up to scratch if it is to endure *GT2/GT2000* comparisons.

Metropolis Street Racer **Sega | Bizarre Creations | Spring | UK**

Powerslide your way around central London and (of less relevance, perhaps) Tokyo or San Francisco in a racing title that promises super-authentic gaming; the time of day relates to the time of play – if you switch on your Dreamcast in the afternoon UK time and decide to take one of the 20-odd open-top roadsters for a spin around Tokyo's streets, the race will occur at night time.



Sonic Adventure 2
Sega | In-house (Sonic Team) | Late 2000 | Japan

Little, other than a confirmed 2000 release, is known of this title at the time of writing, but you can bet that a move back to 2D isn't going to happen. One thing *is* certain: this sequel will be a more rounded title than its predecessor, as Sonic Team will not be under the cosh in an effort to deliver alongside another hardware launch. Expect a more accomplished camera and bags of spit and polish.

Bio Hazard Code: Veronica
Capcom | In-house | Spring | Japan





The *Bio Hazard* legend has always been built around bringing the power of the cinema to videogaming, with innovative camera angles, thrilling audio, and memorable set pieces, and *Code Veronica* does not tinker with tradition, mixing realtime 3D environments with prerendered backdrops to create a supremely atmospheric undertaking. Cut scenes generated on the fly further enhance matters, although anyone expecting major gameplay innovations could be disappointed. A case of more of the same, but shot through with even more intensity, then.

N64: going out with a bang

Assuming the updated version of *Super Metroid* may have become a Dolphin-based product, things are not looking too rosy for Nintendo's 64bit console. Naturally, even if it delivers half of what it promises, *Perfect Dark* is likely to shame the majority of firstperson shooters, but like humans and Pot Noodles, try as it might a format cannot survive on one title alone

Perfect Dark **Nintendo | Rare | April | UK**



To say that a lot is expected of *Perfect Dark* is akin to calling the North Pole 'a bit chilly'. What's left of the original team (six *GoldenEye* core members walked out on the project early last year, five moving to establish Free Radical Design) has been working flat out for the last umpteen months to deliver what may turn out to be the best example of this hugely popular genre. It's the sole reason to invest in an N64 right now (if you ignore passable titles such as *Ocarina of Time*, *Mario 64* and *GoldenEye*).

Zelda Gaiden
Nintendo | In-house | December (UK) | Japan



Not, strictly speaking, a Miyamoto production (he is currently preoccupied with Game Boy Advance and Dolphin projects), *Gaiden* nevertheless warrants attention from the discerning N64 devotee, providing it delivers an experience not dissimilar to the brilliance offered by *Ocarina of Time*. Expansion Pak compatibility has improved visuals as well as increasing the number of simultaneous enemy attacks. Intriguing gameplay aspects are expected with the introduction of ability-endowing masks.

Twelve Tales: Conker 64
Rare | In-house | May | UK



Admit it: you'd forgotten about this, hadn't you? Suffering one of the biggest delays for an N64 title (though still easily overshadowed by Seta's *Rev Limit*), Rare's ongoing squirrelly platformer has allegedly undergone a complete rehash and promises to revolutionise its genre – if it ever reaches a release date. As ever, expect the usual Rare multiplayer offerings to accompany the main game.

Banjo-Tooie **Rare | In-house | October | UK**

Another Rare production and the follow-up to 1998's popular (if unimaginative) 3D platformer. *Banjo-Tooie* carries on where its predecessor left off. Judging by the texture quality and lighting effects, the game is to be Expansion Pak-enhanced *à la DK64*, while some sort of bridge adaptor design would explain how the *Tooie* cart unlocks the inaccessible areas of *Banjo-Kazooie*. A stray from Rare's typical platforming formula this time around could do wonders for the overall experience.



Excitebike 64 **Nintendo | In-house | Summer | US**

An update of the legendary 8bit title, *Excitebike 64* has shown much promise to date. Marrying realistic physics with arcade-like environments (though SuperX indoor arenas are also included), **Edge** is confident this could turn out to be the *1080°* of the motocross gaming world.



illustration : by David Lyttleton

Development Hell

The scene is that final period in a game's production. Development houses transform into sweatshops. Friendships die. Marriages end. No-one goes home until the game is shipped. Edge explores the seemingly infinite cram session

Crunch time. The term sends shivers down the spines of embattled game developers everywhere. Any developer will tell you that the final stretch of work on any game is the toughest, most demanding, and most time-consuming part of the job.

Look at the catalogue of titles that just made it to store shelves for the Christmas season and it's guaranteed that you'll see some titles that have taken years off the lives of those who made them.

It's a tough road, and yet their ears must be ringing from the remarks of doubters: "These guys make games. They play with Nerf guns at their offices, they get big royalty checks when the games are done. We're not crying over how hard life is for them."

Foam projectiles and big money aside, game development teams aren't that big (outside Japan, anyway). More often than not, game developers in the US and UK are working weekends, as well as shifts that average from about 10am to 10pm.

The casual dress and LAN fragfests may be pleasant perks, but the demands of the job push game development beyond the realm of respectable hours. It's a career choice with serious repercussions on family and social life.

Those who have been in the industry long enough have seen their fair share of marriages end – and this comes back a large part to the time demands of the job.

Here comes the crunch

So what is it exactly that makes the closing period of game development so difficult? Problems during development frequently get pushed aside to be fixed at the end. As a game undergoes its transformation from a bare engine to a working prototype, more problems arise. And the more of the game there is developed, the more there is that can go wrong with it.

Many features and control issues are tied up at the end of development. According to Shiny Entertainment president **David Perry**, ▶

Development hell in their own words

When it comes to the "make or break" period of game development, it is, more often than not, the developers who are made or broken.

And in the crazy world of crunch time, crazy things happen. Edge polled every industry veteran whose email address could be found and asked for their best crunch time stories.

Their responses, true tales of superhuman endurance married with bizarre circumstances, appear over the following pages.

when a developer says: "It will all come together in the end," he actually means: "Things are buggy, broken, or not implemented yet and they had better all come together at the end!"

Almost universally, a game quickly goes from just functional to playable in the last month of development. That's when a lot of late nights are required to debug, tune and finish a game on schedule. The team must tie up all the loose ends behind the graphics, music, sound effects, gameplay mechanics and, increasingly, story and character development.

When these elements first come together, the game is said to be in its alpha stage. The elements are there, but the code is still very buggy, the camera may be wonky and character AI may be flawed. Once these bugs are worked through, the game enters the beta stage. This is when the final crash bugs are exorcised and tuning begins.

Explains Perry: "Tuning and setting variables such as difficulty, lives, ammo, and energy can't really be done until the de-bugging – making sure a gun works or that your enemy is not blind – is out of the way."

Developers must iron out programming bugs, make modifications to the gameplay, eliminate the bugs that arose from making the modifications, then modify some more.

The pressure is twofold. They must deliver the best gameplay possible within the time limit and iron out all the bugs that occur. Often, new features are added or planned features are dropped within this time frame. It is the make or break period for a game's development.

"Neglecting either tuning or debugging will simply ruin all your years of hard work," says Perry.

Months later, teams can see the end of the tunnel. But if they don't want to ship an unfinished or unpolished game, the amount of work done per day has to increase dramatically.

And those long hours mean that productivity usually goes down, necessitating even longer, less productive hours. It's a vicious cycle that ends (rarely) when the team decides the game is finally finished – or (much more frequently) when the publisher demands that the game ship no matter what.

This is where the marathon sessions begin. As the days before deadline approach, development teams cease to go home, often falling asleep at their keyboards, wearing the same clothes for several days, eating takeaway food for three meals a day.

To quote Thomas Paine, these are the times that try men's souls. Crunch time kills friendships, ends marriages, and causes the occasional fist fight.

"There are lots of discussions, lectures, and software products declaring their solution to this 'cramming' at the end," admits Perry. "But I think it's now infused into our genetics forever, after years of our parents and parents' parents cramming at school."

Of course, developers feel an overwhelming urge to continue adding to a game until the last moment. But a month or two before a game is completed, it undergoes a 'feature lock', which means that developers cannot add any more features.

They must simply debug and tune the game with its current feature set in order to get the project finished. As debugging and tuning commence, particularly in a product

Testing courage...

"I was working for an English publisher. We were trying to finish a PC port of an Amiga game in time for the holidays. To get through the final bit of testing, I took three testers along to the developer, based in the middle of nowhere, and set up camp.

"We were there for a week before we had the game to a level which we felt was finished. Just before we drove off with the final set of master disks (shows you how old the story is), I thought it would be a good idea to have the testers play through the game, start to finish, one more time.

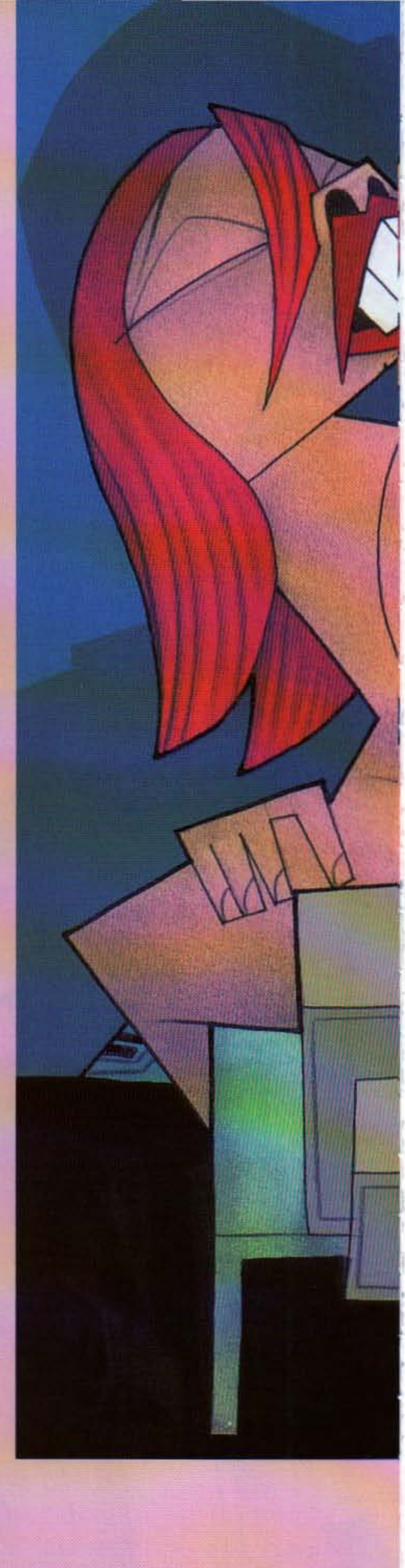
"This takes about five hours of playtime – remember, the tester knew the game better than the back of his hand. He got to the last level, finished the last boss, and pow – nothing happened. We went and awoke the programmer (it was about midnight), and told him the problem. He looked at the code and instantly spotted the problem. Five minutes later our poor tester was back playing the game from the start.

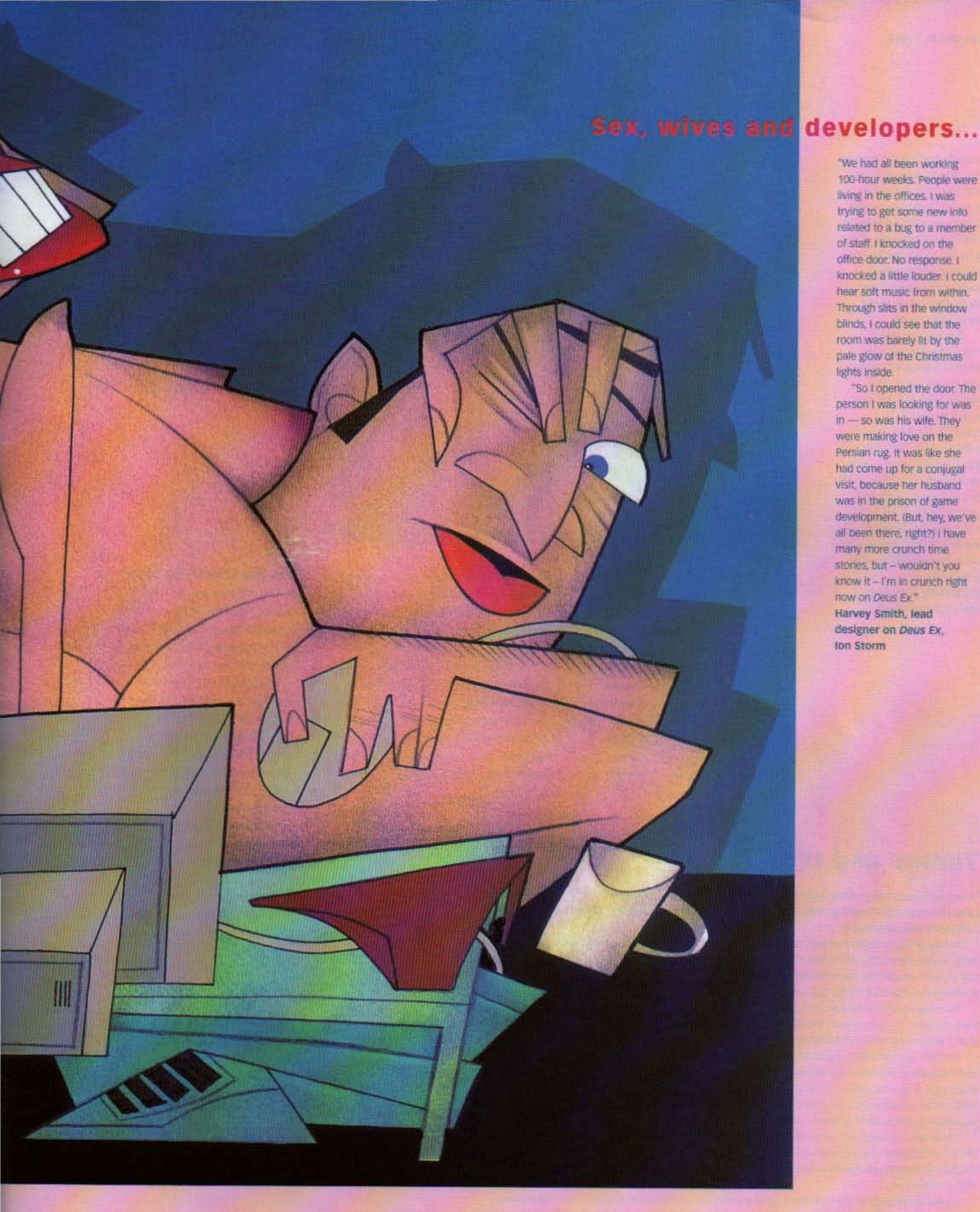
"Six hours later (hey, he was getting tired), he got to the final boss, killed it and, uh-oh, nothing happened again. The player was just left on the screen by himself – no ending animation, no rolling credits, not even any music.

"So we politely interrupted the programmer again and explained the problem. He looked at the code and muttered: "God, that would never have worked!" typed some more lines of code and blam, we got a whole new version.

"I looked at the tester. He looked like he'd played this game for weeks. And just after completing an eleven-hour stint, I asked him to do it again. He did. He finished the game, and thankfully it worked right this time. We got in the car and took off, never to come back. We got the game done just in time. The poor lead tester spent the next week in bed.

"While a lot of crunch stories will talk about how much dedication the programmers had, I think testers probably have the worst part of it – they get paid peanuts, are expected to work a 24-hour shift when it comes to finishing product, and they don't even get any credit for it. If it wasn't for the test groups working like crazy, crunch mode would all be for nothing."
Colin Gordon, vice president of product development, Boss Game Studios





Sex, wives and developers...

"We had all been working 100-hour weeks. People were living in the offices. I was trying to get some new info related to a bug to a member of staff. I knocked on the office door. No response. I knocked a little louder. I could hear soft music from within. Through slits in the window blinds, I could see that the room was barely lit by the pale glow of the Christmas lights inside.

"So I opened the door. The person I was looking for was in — so was his wife. They were making love on the Persian rug. It was like she had come up for a conjugal visit, because her husband was in the prison of game development. (But, hey, we've all been there, right?) I have many more crunch time stories, but – wouldn't you know it – I'm in crunch right now on *Deus Ex*."

Harvey Smith, lead designer on *Deus Ex*, Ion Storm

Crunch flights...

"*Spec Ops 2* just went gold, so I am all too familiar with crunch time. My senior programmer stayed in the office and wore the same clothes for four days in a row (although he was nice enough to run them through our washing machine at least once). After we got the official approval, he was able, somehow, to meet me at the airport at 7am the next day to fly to San Francisco, for a Dreamcast developers' conference. Now that is dedication above and beyond the call of duty.

"When I was at Virtual IO (the company that made VR headsets), some of our people missed a flight from Seattle to Tokyo and were unable get another flight. Rather than move the meeting to a new day, they decided to fly around the world – the long way. They went from Seattle, to New York, to London, to Bombay, to Japan. They still got there sooner than if they had waited until the next direct flight, but not in a good condition."

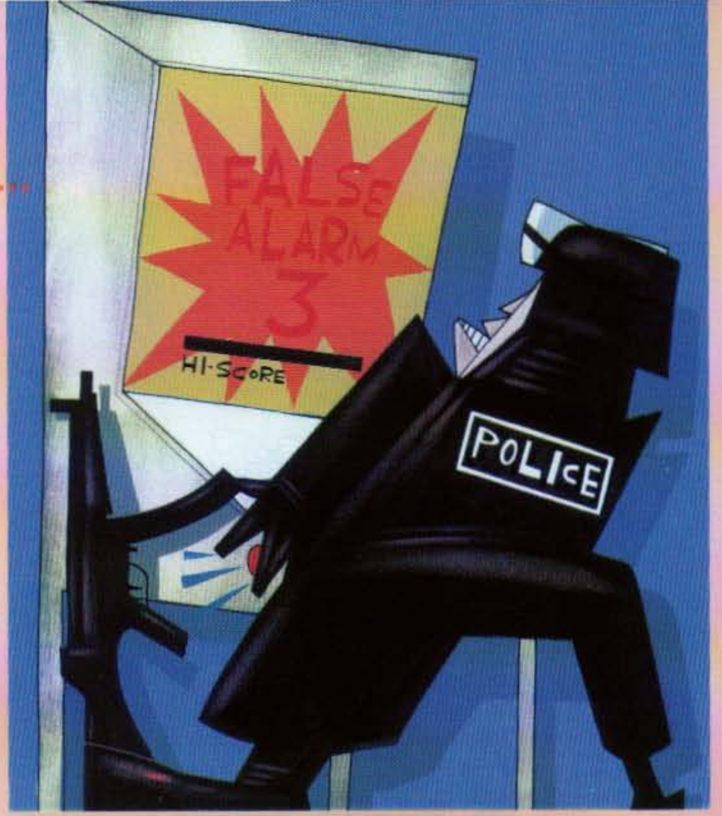
John Williamson, producer, Zombie

Pinball police...

"I bought the Shiny team some cool pinball machines to play with. Little did I know that while the Messiah team was diligently working away on the third floor in the middle of the night, the pinball machine was randomly making a glass breaking noise. Right above the machine was a 'glass break' alarm sensor.

"This was followed by somewhat excited police officers storming the building, guns drawn, putting the *Messiah* team members up against the wall to be searched. To compound the problem, many of the *Messiah* guys were foreign and wore black military-style gear. (Thank God they were not playing with Nerf guns at the time!) It was stressful, especially since it happened repeatedly before we found the source of the problem."

David Perry, president, Shiny Entertainment



that is extremely late, features and levels that are proving hard to fix are sometimes unceremoniously chopped.

One recent example of a game that had its feature set frozen was *Legacy of Kain: Soul Reaver*. As the project was running a year later than its first scheduled release date, several later levels were cut from the game. As a story-driven adventure, the cutting of the levels required the design team to amend the story. (This decision came after the voiceover for the project had been recorded, and several sound files for the originally planned ending were buried on the PC version. A group of hardcore gamers found the files, extracted them, and posted them on the Web.)

It's disappointing to hear stories such as the one concerning *Soul Reaver*. But the reason developers work so feverishly during crunch time is to get the tuning down and the gameplay right. Nobody intends to ship a bad product. But sometimes a development team's reach exceeds its grasp.

"It's a pretty high productivity bar when you ask your co-workers and yourself, 'Have you made your $2m revenue for the company this year?'"

Can the crunch be stopped?

Why not add more people at the end to a project to help alleviate the crunch? Because the creation of software is such an intimate process that adding team members near the end just won't speed up development.

"More people just ask too many questions," moans Perry. "They actually decrease the efficiency of the people that were really getting the work done. For example, hiring 20 programmers to work with the three you already have will just swamp them with problems, questions, and thirdparty bugs."

Any painter, sculptor, musician, photographer, or director will tell you that the creative process isn't always orderly. Even a game with a solid design document will still change during production. As games become increasingly cinematic, story-driven vehicles, costing ever more to produce, design documents and preproduction planning are playing a crucial role in development, as is asset management during a project.

"I used to waffle on about 'dynamic design'," smiles Perry, admitting that there was never a design doc for *Earthworm Jim* or *MDK*. "It was my way of explaining that I had shipped tons of games without ever having a design document in any form.

"We knew the direction we wanted to head and then kept enhancing the bits that were working the best." A logical philosophy, sure. But perhaps one that is best left with the days of smaller development teams.

"Once teams get over about nine people things start getting messy. You need to track progress and keep everyone guided, as different people work at different speeds. Without a design, this can get out of control really quickly."

Perry makes the inevitable comparison to the more detail-oriented world of

Tuning and timing...

"It was April, and I was working onsite at Pumpkin Studios in Bath, England, finishing the realtime strategy game *Warzone 2100*. We had to make the quarter. A team of about 14 people had worked nearly 16-hour days for the last three weeks.

"We had to do an English version, as well as localised French, German, and Italian ones. Towards the final week, testers were complaining that the game was too hard. As an RTS game, proper balancing and tuning was crucial. Add into the mix more than 2,000 units which can be created, and it was extremely complicated to change the values for tuning. But Jim Bambra, the project director, did it to appease the testers.

"Two days before the final master was due, the test team now found that the campaign and skirmish were too easy. Jim gave us his "I will kill you" look, and then called a company meeting with the whole test team. People were split on the difficulty, but several campaign missions were flagged.

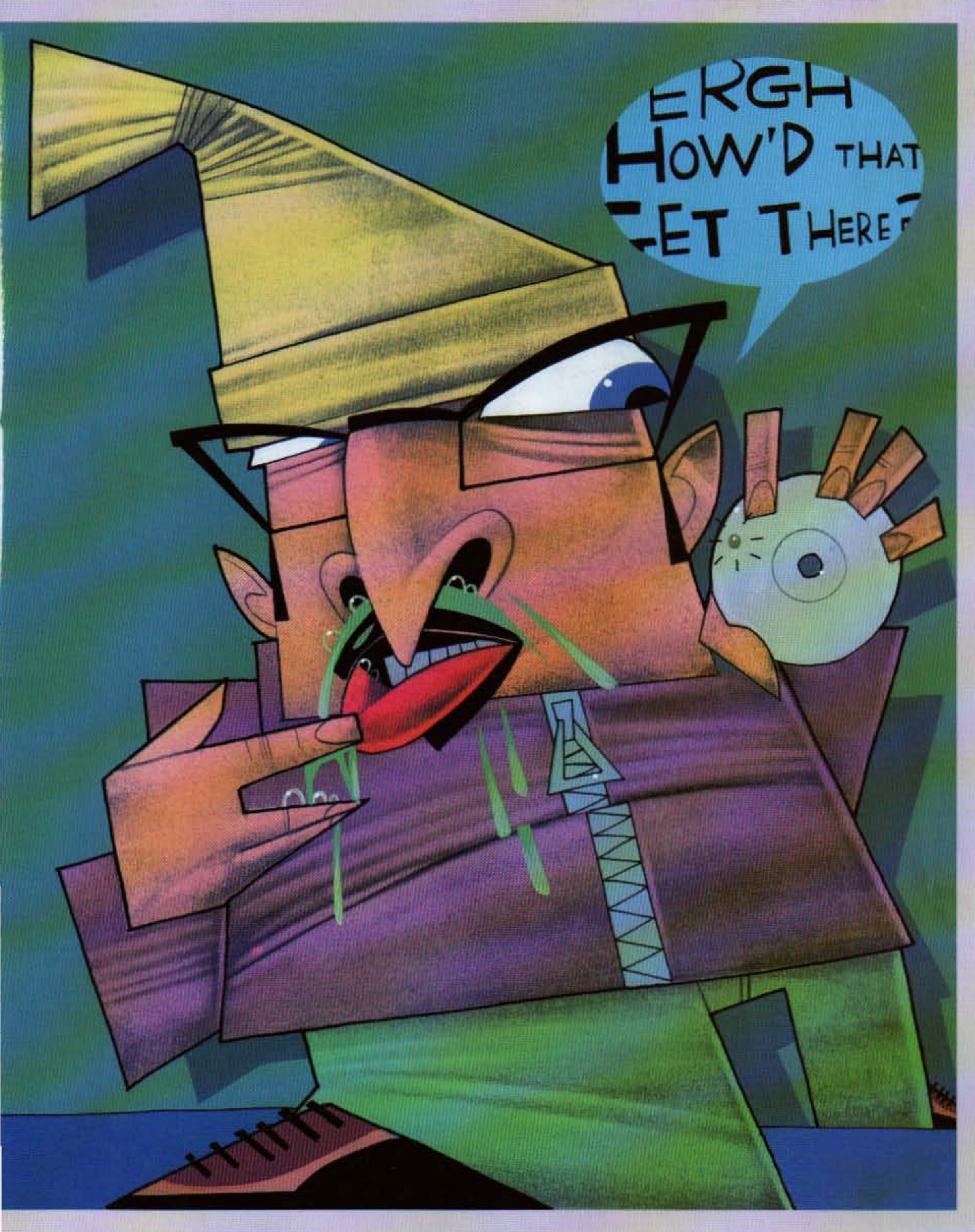
"Jim then did a final edit, prayed to the tuning gods and thankfully it turned out fine – everyone was happy with the balance. But there was one major complaint from users, resulting from a feature we added in the final month. It was the mission timer. This was an Eidos idea. We wanted a one- to two-hour time for each mission. This would prevent users refining endless supplies of resource, attacking the computer, and then repairing the unit to gain experience points.

"If you set your forces to do this automatically, after about eight hours you would be nearly invincible for the rest of the game. The programmers could not easily limit the resource, so the timer was enacted to stop cheating. Our testers always had enough time to finish the mission, however – some missions were tight with the time limit.

"A large percentage of RTS crowd and some review editors bemoaned the timer as an unnecessary annoyance. This was frustrating, because they did not appreciate our position on its validity. As an American producer working with a UK developer, one of my contributions was providing a magical elixir that propelled the team to finish the code and put out a quality title. It came from the newly opened, previously never heard of, Starbucks Coffee of Bath, England."

Eric Adams, producer, Eidos

When a debugger is not enough...



"This is a vulgar story – I beg your indulgence in advance. We were in the closing hours of *OddWorld: Abe's Oddysee*. The game was complete and on the disc, which was getting a final run-through by designers Jeff Brown and Paul O'Connor (we had no test staff on that job, so the designers did the in-house testing). Jeff discovered a crash bug in one of the later venues. It might have been the Forest Temple ender. So of course, everything came to a halt while we tried to track it down.

"Eric Yiskis fired up the debugger and Paul played through the game, trying to reproduce the crash. Things were painfully slow. Eric was watching the code one line at a time, translating to a slow motion, fractured play experience for Paul, meaning his timing was all off and he kept making dumb mistakes. Add that to the accumulated fatigue of several weeks of crunch time, and we weren't at our most efficient. Still, Paul played through the sequence multiple times and we couldn't find anything wrong with the code or reproduce the crash.

"Meanwhile, on the other side of the room, Jeff continued to reproduce the bug by playing off the disc. So, we have a real mystery on our hands: a game that crashes off the disc but runs just fine on the development station, and code that looks correct even through a line by line examination by our programming staff. Deadline. Creeping panic.

"Then Craig Ewert, another of our programmers, pops the disc out of the machine, turns it over, and sees there's a bit of crud (well, to be fair, it was... a booger) on the disc. He wipes it off, pops it in the machine, and the level plays just fine. Bug solved. Instead of running it through the debugger, we should have run it through the de-boogerer."
Lorne Lanning, president and creative director, OddWorld Inhabitants

Hollywood. "We need to think of our staff as the expensive celebrities who we don't want sitting around while we redesign stuff," he says. "Certainly our focus at Shiny is turning towards tons more pre-planning and a lot more reality checks along the way."

Even the film industry – with its 90-year history, its unions and production positions organised down to the minutiae of who's refilling the crisp bowl on the snack truck – still has its share of nightmarish production over-runs. Remember 'Waterworld'?

Still, Perry's suggestion is valid, and a model where ingame development is further segmented into preproduction/production is one many other developers will begin considering as well.

But game development is an entirely different beast – some 70 years younger than the film industry and evolving at a much faster pace. So much faster, that game developers' staffing needs have changed tremendously with each new generation of hardware.

"Over the past few years, team sizes have gone from ten to 20 people, and so much more is required," observes **Chris Taylor**, president of Gas Powered Games and designer of the original *Total Annihilation*.

"It's crazy. It's like taking the same team

Die hard developer...

"When it came to crunch time, I had the bright idea of staying in the office the entire week just to get things done.

"It was the early hours of Tuesday morning when I hit the sack. I laid out my sleeping bag on the floor in my office and sprawled out in nothing but my jean shorts.

"The floor wasn't comfortable, so I decided to grab cushions from the couch in our lounge area. I took all but one pillow and constructed a fairly good bed. My feet were still dangling, so I went back to the lounge for that last cushion.

"This particular company had tight security. All staff had security cards that allowed them in and out of certain areas. Heading back to my office, I realised I had left my security card on my desk. I was stuck! Doomed to be discovered later that morning, half naked in the lounge. It was like one of those dreams where you're in school wearing only your underwear.

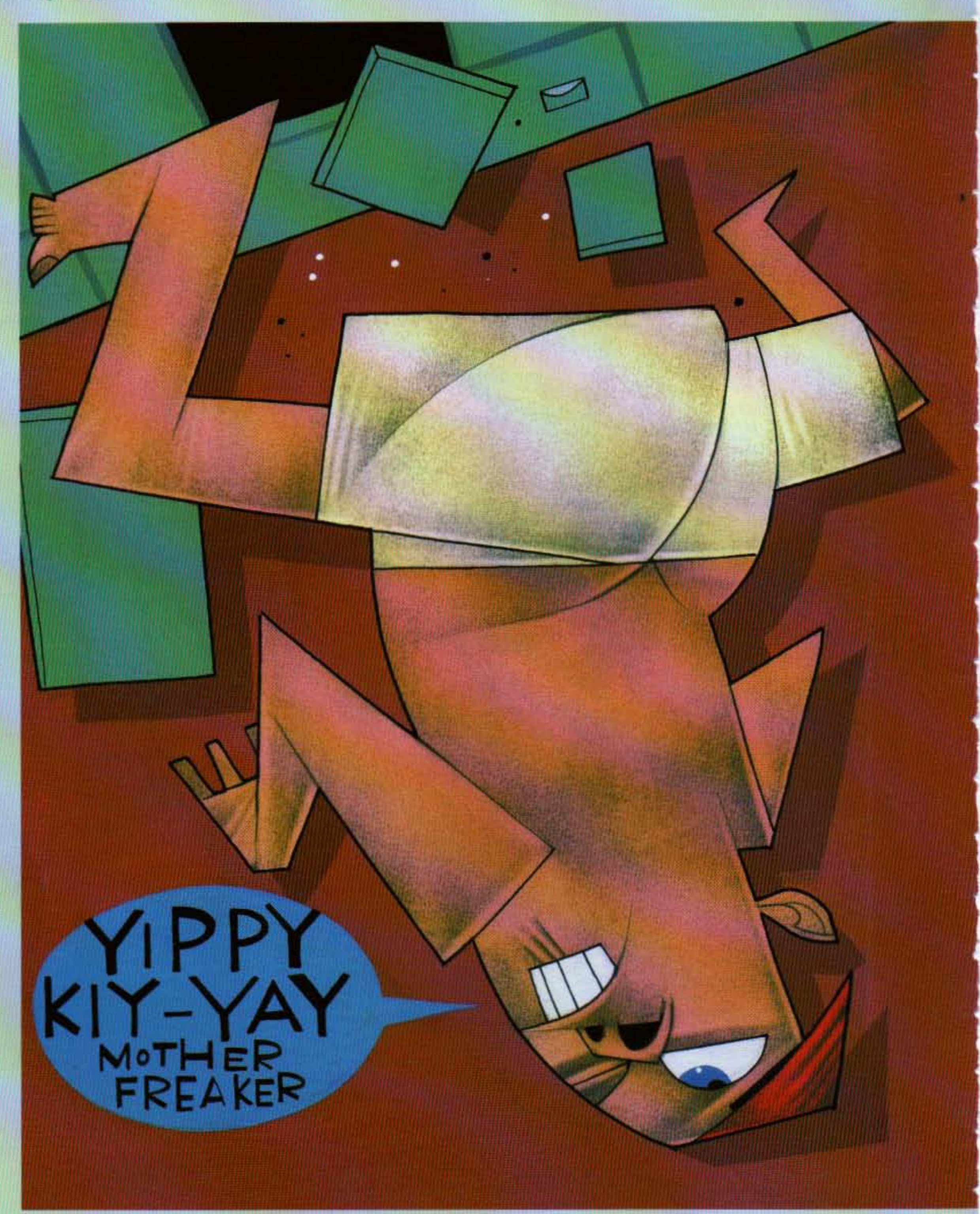
"I couldn't sleep (there were no cushions on the couch). Then I remembered the scene in 'Die Hard' when John McClane climbs through the ceilings. My first thought was, "Are you nuts?" But why not? It worked for him.

"I stacked a chair on top of the refrigerator, climbed onto it and eased the tile aside. The light seeping through the cracks was my only guide through a jungle of metal, cables, and pipes. I started to make my way across, fearing I would come crashing down through the fragile tiles. Fortunately, having worked in construction for a few years, I had a good idea where to crawl and which pipes would support my weight.

"After making my way over air ducts and under network wires, I reached the other side of the security door, exhausted. I began to climb down and realised how dirty I had become. My foot left a long black smudge on the wall. Then I jumped, landed in a cloud of dust, and kissed the carpet.

"I had to take a shower and do some major cleaning up. But I learned my lesson – don't leave the office without your card! Needless to say I finished out the week, getting all my work done, and now I have a great story to tell my grandchildren. I'll just have to add the part about me saving the company from terrorists."

'John McClane', developer



No love...

"I don't know anyone who has fond memories of crunch time, when friendships end over whose fault the delays were, marriages end because one of the spouses (almost without exception the husband/father) spends too much time at work, and co-workers end up in the occasional fist fight.

"It's hard to be nostalgic for marathon work sessions created by poor planning, bad management, indecision, insecurity, creative paralysis, and stress."

Kelly Flock, president, 989 Studios

that built a speedboat and asking them to build a battleship. You can't use the same hull design. Those who try are going to have an extremely difficult time getting things to work."

Taylor, who's busy with his forthcoming action-RPG for Microsoft, entitled *Dungeon Siege*, remembers a time fairly recently

to finish *Perfect Dark* in time for Christmas '99, Nintendo opted to delay the title until spring, citing the developer's preference to meet the expectations of the millions of gamers who enjoyed *GoldenEye*.

Even more to the extreme is id Software. The developer of *Quake* refused to set a release date for *Quake III: Arena*. It simply argued that the game would ship when it was ready. Does that mean everyone at id works nine-to-five and goes home? Quite the contrary, according to Id President **Todd Hollenshead**: "I don't think people on the outside can really understand what a pressure cooker people are put in when they work at id."

'There are lots of discussions, lectures and software products declaring their solution to this cramming at the end. But I think it's now infused into our genetics'

when you could have guys working on one aspect of the game with very little communication with others: "But now everyone needs to work together and stay informed about all the changes going on with the project."

With the 3D graphics revolution, developers have faced new challenges, specifically cinematic ones. And, as has become obvious to anyone who's played a game in the past couple of years, ingame cameras have been problematic. Does this mean teams will begin to hire cinematographers? Perhaps, but they won't necessarily be part of the core development team.

"Team sizes will continue to grow. Key members will get more valuable until things become impossible to sustain," Perry predicts. "The nuclear meltdown will result in many teams going bust and the survivors contracting the best studios in specific areas such as motion capture, concept art and facial acting.

"That way we all 'share' and only pay for work when we need it. Then, when later on we are spending months on design, for example, we don't have to carry the burden of all that staff."

When does it end?

As with professionals in many different trades, it's easy to see veteran game developers being accustomed to (and perhaps addicted to) the adrenaline and pressure created by deadline situations.

As horrible as crunch time is when you're in it, it's an intense time. Afterwards it's easy to remember it through a fog of nostalgia. Certainly teams can give it their all in a heroic effort to produce the gold master, but how playable the game is when it is considered 'done' is entirely another matter.

Companies like Rare are sticklers for perfection, with a reputation for big budget, high quality titles. Nintendo has often delayed Rare titles just to give the team the required time to perfect the game before it ships. And while Rare might have been able

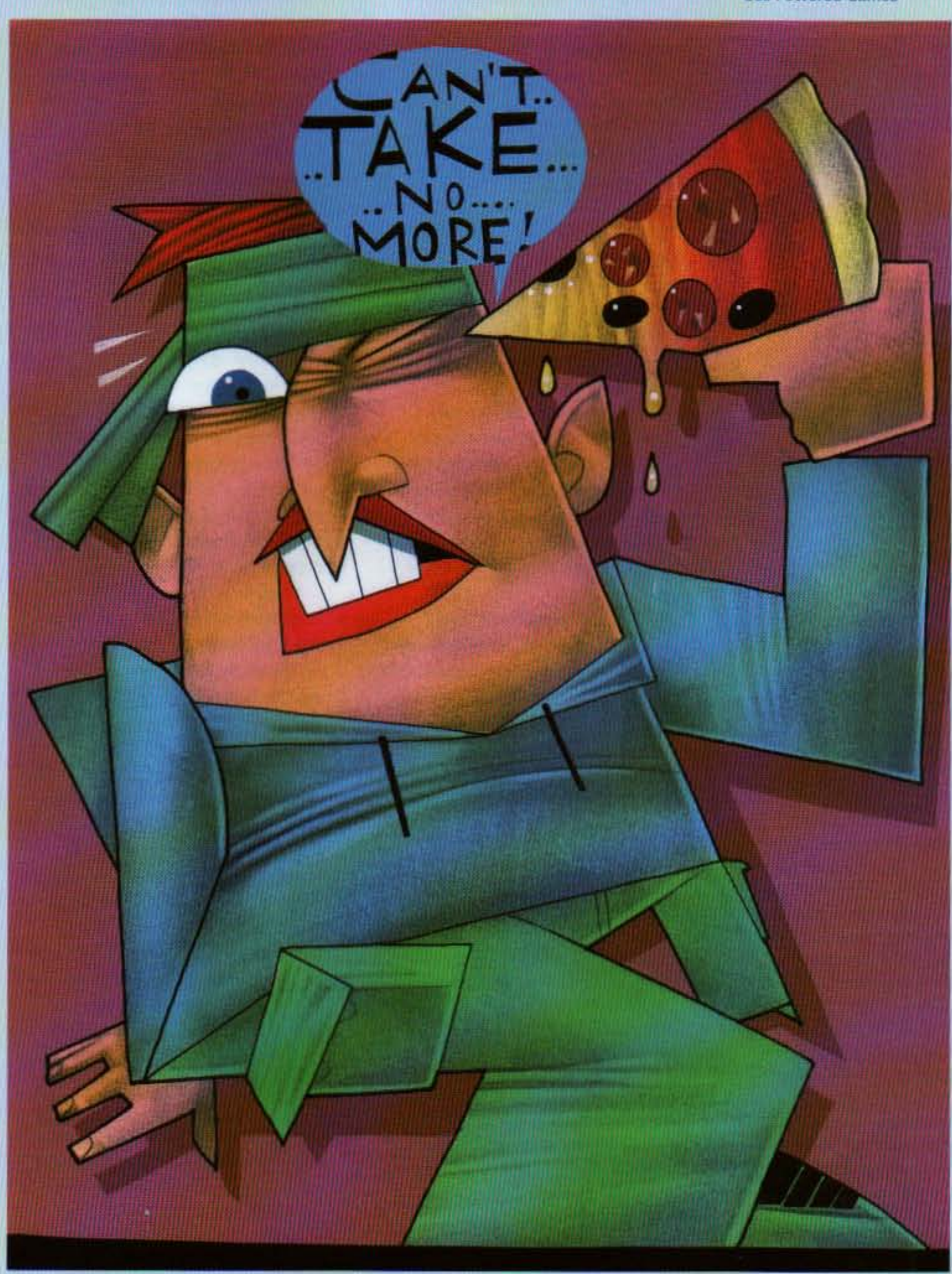
Full development jacket...

"When I think of crunch time, I think of pizza. Basically, pizza equals crunch time. If I go somewhere that makes pizza, I feel like it's crunch time. It's like 'Nam.

"You imagine you hear helicopters and people shouting at you that there isn't enough room on the chopper for any more wounded.

"You start seeing bullets whipping past your head and then somebody slaps you in the face, right there in Pizza World! It can get ugly. Oh yeah, and then there is Chinese food, and..."

Chris Taylor, president, Gas Powered Games



"We need to **think of our staff** as the expensive celebrities who **we don't want** sitting around while we **redesign stuff"**

Aside from the scrutiny that id developers receive from exposure in magazines worldwide and with millions of Internet users, Hollenshead suggests the pressure is on internally, as well. He reveals that id set a company revenue record in 1997, raking in $28m.

"And that's with 13 people," says Hollenshead. "It's pretty easy to do the maths, it's well over $2m per employee in revenue. So it's a pretty high productivity bar when you ask your co-workers and yourself, 'Have you made your $2m in revenue for the company this year?'"

Id enjoys the luxury of funding its own game development, while most developers rely on instalment payments from publishers, which come in when the game meets developmental milestones. Finishing a game when it's due to the publisher is important.

The developer may require the final milestone payment to maintain payroll and business expenses. And at the end of the day, some titles need to ship for financial reasons. Often, a publisher needs to make a judgment call on whether added development time will actually add significant improvements to the gameplay experience or simply tack on more development costs while insignificant effects are added.

Gabe Newell, president of Valve, revealed that *Half-Life* could have gone out the door one year earlier, when it was intended to ship. But he intimates it would have been merely the shadow of the hit game it was. Sierra agreed to give Newell's team the extra year required to make *Half-Life* great.

Other external factors often lead to shipping decisions being made regardless of the developer's opinion on how finished the game is. Many publicly owned publishing companies, including Electronic Arts, Activision, GT Interactive, and 3DO, need to show profits to shareholders every quarter.

If a game fails to ship during its scheduled quarter, the company cannot record the subsequent revenue the game generates in time. That may result in a loss for that period, which in turn usually has a negative effect on the stock price. This far too often leads to the ship now, patch it later mentality that plagues so many PC games.

Perry complains: "When I talk to developers working for public companies, the common thing they hear is 'Just ship it! Adding that effect won't sell us another copy!'" Perry accepts that his company's *Messiah* project is late, but is confident because the team keeps pushing ahead, quarter to quarter.

"It would have been very easy just to license the *Quake* engine and whack out a few *Quake* clones," he admits. "But we choose to try new stuff. Some public companies, such as Interplay, see the value in hiring and nurturing creativity."

Crunched out

It's unlikely that we'll see game development organised to the point where crunch time is eliminated. Not in the near future, if ever. Long hours will undoubtedly remain the method to this madness. Yet, with all the pressures, deadlines, and problems developers must overcome on a daily basis, a finished game is undoubtedly the miracle of science married to an incredible work ethic.

It sometimes seems like a game will never be finished while you're working on it. In fact one developer relates: "I once figured out, statistically, that no game should ever ship." But it seems that for every last minute disaster that requires a marathon session, in most games there are an almost equal number of last minute miracles: hacks that double the framerate, brilliant gameplay tweaks, and so on. Taylor reveals to us that he keeps a grocery list of miracles he expects from his staff. Unbeknown to them, he secretly crosses off these miracles as his team completes them.

So, next time you walk down the aisles at your local game store, think about all the cups of coffee and stacks of pizzas that have been consumed in the production of each game.

More importantly, think about the programmers, designers, and testers who can't remember certain months of their lives because every moment was lived in a fog of bug reports and variable tweaking. Which is not to say you have to like all their work – just don't be caught thinking they had it all too easy.

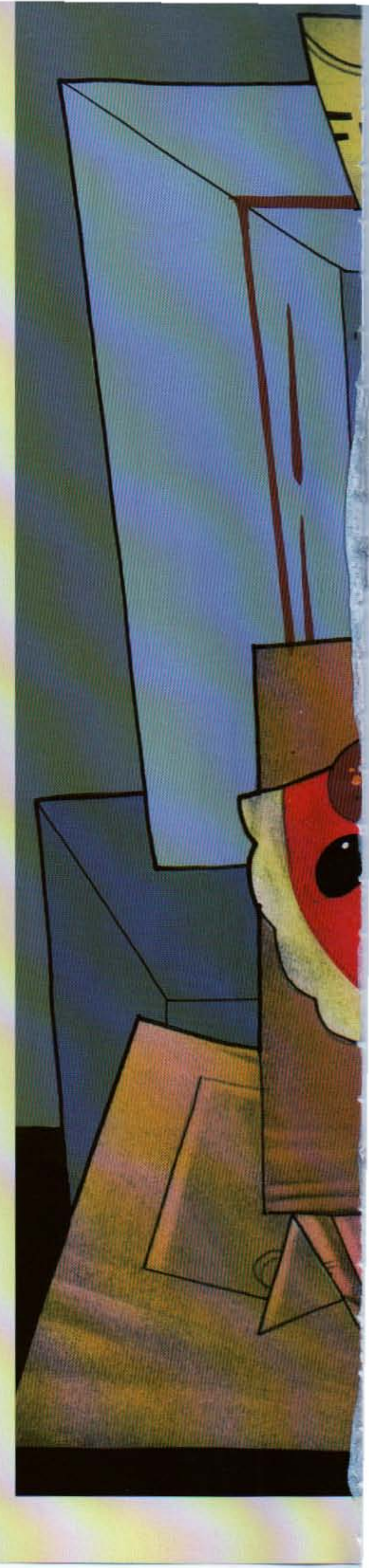
Concert bound...

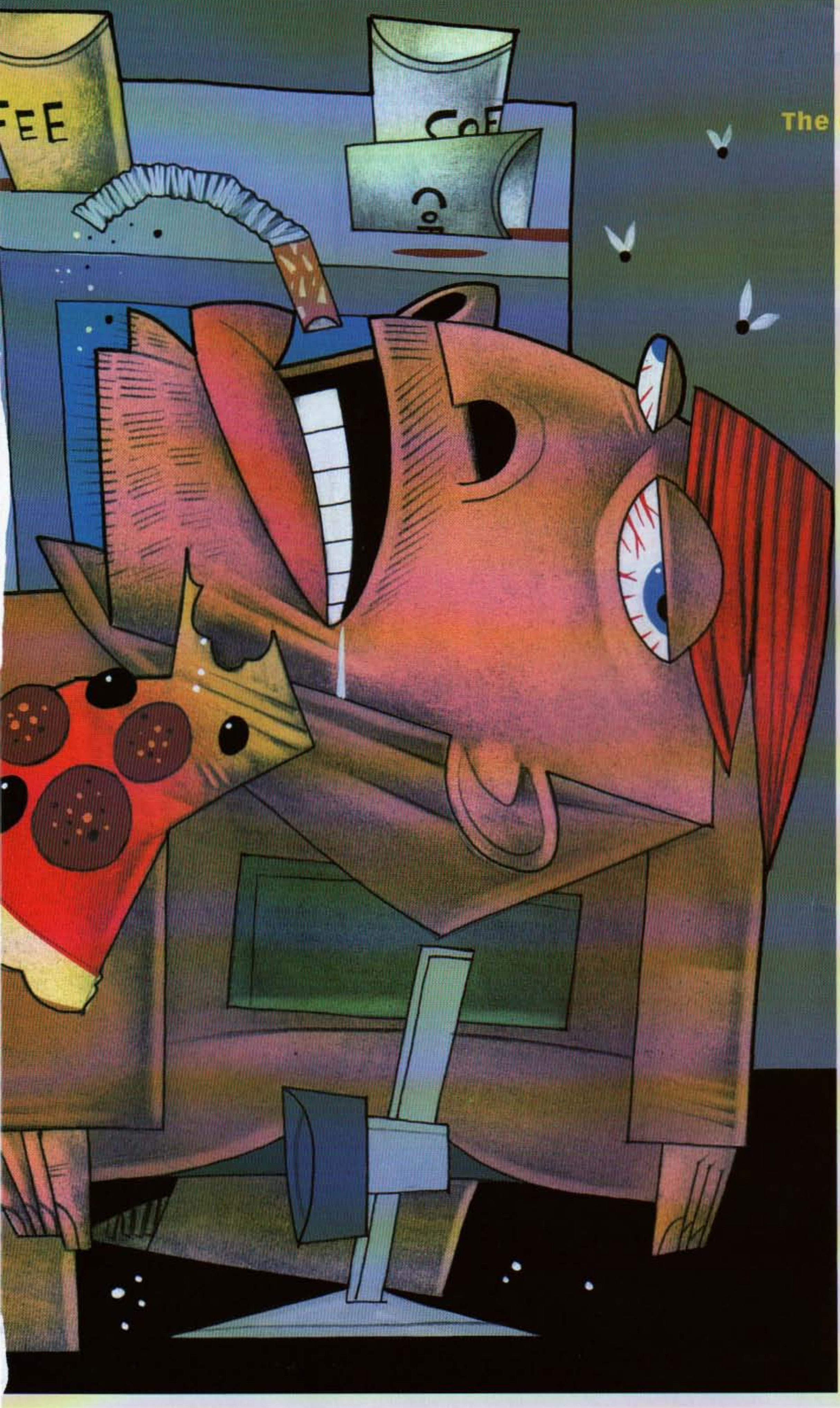
"The Turbine art department was in crunch to get its bugs killed on *Asheron's Call*. My co-worker Pete and I had spent several days in the office, from early morning until around 2am to get as much done as possible. After a few days of this, I realised that our tickets for the big Tom Waits show were on the night of the "true-and-honest-I-really-mean-it-this-time" deadline.

"I came in early, (10am) and Pete came in sometime later. He gave me the tickets and said we'd meet at the show, then he left to pick his brother up for the concert. My wife and I drove into Boston and got to the venue. The show started with no Pete or brother. Three or four numbers in, I began to wonder if I had asked Pete to pick me up at the office before the show, or whether we had agreed to meet here. I started to get really nervous. But then they showed up – they'd been in traffic.

"The show was great, ending around 11 pm. My wife and I drove home, and I immediately got back in the car and went back to work, finishing around 3 am. The next day I was told that the real deadline wasn't for another day or so. Of course."

Sean Huxter, lead artist, Turbine Games





The deathmarch...

"I recall the brutal last phase of shipping a game, called the deathmarch. After working a year-and-a-half on the game, you completely lose your perspective. You can't even see what you thought would be fun about the game in the first place. You only see a growing stack of bug reports that have to be re-created, isolated and fixed.

"The pressure of working around the clock generates the overwhelming wish for it to just be over. Everyone is on autopilot, staggering towards the finish line.

"Not everyone on the team makes it. There are casualties on the death march. Some simply cannot go on – pitching forward into the pizza box, asleep mid-bite. Others go psychotic, jabbering nonsense at their monitors.

"The team is often forced to leave them behind with some cigarettes and a single bullet. But for those who survive and make it home, victory is sweet. Shipping any game is a profound badge of honour, respected by all developers. It's what separates the men from the boys."

Mark Long, founder, Zombie Studios

TESTSCREEN

The definitive monthly assessment of the world's latest videogames

Waiting for other players...

What's the point of playing a game against a total stranger who you're never likely to talk to, let alone meet? Where is the satisfaction in that?

This is the argument against online gaming.

Okay, you may have your opponent 48 frags down at *Quake III*, but imagine for a minute that this faceless individual couldn't care less about whether or not you beat him (or her) and is therefore unaffected by your gaming skills. You'll never know. Where's the gratification now?

If you ever have the opportunity to set foot inside Rare, this is what its staff will tell you. Do you think the company spends so much effort on making sure its games include substantial multiplayer support simply because the N64 just happens to offer four joypad ports? Well, yes, this is certainly part of the reason – but the other important point is the Stamper brothers' belief that the best multiplayer experiences result from four players sat around a single screen, battling against and reacting to one another in the flesh.

They've got a point, of course, as anyone who's played *Super Bomberman*, *NBA Jam*, *International Track & Field* or *Micro Machines* against a bunch of friends will surely attest.

Is *Chu Chu Rocket* as much fun played over the Internet as it is against three living-room opponents? Absolutely not.

It's a similar tale with this month's *Virtual On Oratorio Tangram* (see p76): the twoplayer cable linkup version is easily more rewarding than the modem-reliant option.

'What about *EverQuest* and *Ultima Online*?' Internet adventure gaming fans will rail. But these titles are an entirely different matter, where inter-character communication is an essential aspect of the experience, and gameplay reward is based on a wholly different set of rules. So in this context they aren't relevant for consideration.

Of course multiplayer *Quake II* and *Team Fortress* sessions are massively engaging. But consider how much more enjoyable they'd be if you could gauge your opponents' reactions. Advances in realtime, Internet-based comms, in both audio and visual terms, will make all of this possible before long. Significantly, forthcoming titles such as *Halo* and *Team Fortress 2* will benefit massively as a result.

But will it ever match having your team members alongside you in the same room?





Technology may allow realtime audiovisual exchanges in online play, in *Halo* and *B&W: The Gathering*, but will this ever equal playing the likes *Chu Chu Rocket* against friends in the flesh?

Every issue, **Edge** evaluates the best, most interesting, hyped, innovative or promising games on a scale of ten, where five naturally represents the middle value. A game receiving a 'seven out of ten', for example, is a very competent title with noticeable flaws but which should still appeal to a considerable range of players. It does, after all, score two points above average and should therefore not be considered as such.

Edge's rating system is fair, progressive and balanced. An average game deserves an average mark – not, as many believe, seven out of ten.

Videogames on the Edge

Classics revisited and fresh titles unwrapped to fend off deadline blues



Final Fantasy VIII (PS) SquareSoft
Some of **Edge**'s staffers hadn't completed Square's sprawler until recently, when holidays freed up the requisite time. This is as majestic as they come.



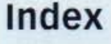
Sonic The Hedgehog (NGPC) SNK/Sega
It may not offer the 'burst processing' of the Mega Drive original (nice term that one, Sega), but *Pocket Adventure* shows why you *must* own SNK's handheld.



Silent Hill (PS) Konami
This month's supernatural slant brought this Konami classic out of the vault, and with it bundle of mildly disturbing images. Short, but oh so sweet.



BH Code: Veronica (DC) Capcom
A new demo of Capcom's survival horror title reveals few gameplay tweaks but some of the most beautiful graphics the DC has seen. Truly a landmark in visuals.



Index

GRAN TURISMO 2







***GT2*'s rally mode is excellent, easily equalling the playability of its closest rivals with a thoroughly convincing recreation of the most dynamic form of motorsport**

The pinnacle of *GT2*'s lineup, the sports cars (above) offer levels of grip the average Fiat Cinquecento driver (top) would kill for. Probably

Hammering its way into Japanese stores two years after *Gran Turismo* first revolutionised the videogame racing scene, *GT2* is a work of lunatic proportions which improves on every aspect of its magnificent predecessor.

It has, without a shadow of doubt, the most comprehensive polygonal vehicle line-up ever assembled, with some 600 cars, spread across 34 of the world's most established manufacturers, ready to be raced on 28 (18 of these new) beautifully designed tracks.

Everyday cars share the stage with hot hatches, sports cars, supercars, touring cars, American muscle cars, World Rally cars, Le Mans-style racers, MPVs, coupés, cabriolets, luxury saloons, '70s classics, limited editions, the super-tuned, prototypes... the choice really is overwhelming.

Once you've tackled the automotive menu on offer and picked one within your budget (only Japanese makes offer second-hand car selections), it's time to survey the different racing categories. Predictably, this is another area which has seen considerable expansion.

Your first port of call is likely to be the Special Event section, whose Sunday Cup race meeting can be entered without the need of a licence (60 driving tests constitute the game's six racing licences, although those cleared in *GT* can be imported thus reducing the workload).

Another 21 meetings (each offering three to five races) await you, once you have the requisite machinery to participate. This can be anything from the usual front-, rear- and four-wheel drive categories to the '80s Sports Car Cup or the Super Touring class.

A new feature is the maximum

Few games singlehandedly renew your passion for videogaming. Fewer captivate you **to the point of** dangerously **disrupting your sleep patterns.** *GT2* is the most **engrossing racing title ever**







Format: **PlayStation**

Publisher: **SCEI**

Developer: **Polyphony Digital Inc**

Price: **¥5,800 (£35)**

Release: **Out now (Japan) January 28 (UK)**



Regardless of how long you've been videogaming, you won't have come across a more comprehensive selection of vehicles in a single game. *GT2* pushes the PlayStation hard against the boundaries of its technical limitations

power limit imposed on most races, making a strategic approach fundamental when tackling the numerous challenges. For instance, there's little point in spending all your race winnings tuning up your ordinary hatchback into some 400bhp turbo-assisted monster if you've neglected to enter the races with a 250bhp limit. Likewise, purchasing your next vehicle now requires a little more thought.

There are more than just 22 racing events, naturally. The GT League offers nine race meetings (each with three to five races) segregated by nationality; the Dirt division holds nine rallying events (three races each) where you race against a CPU ghost, provided you've bought yourself some rally tyres (not all vehicles offer this option); while the seven Endurance meetings test your racing consistency – anything from 30 laps to 200 miles or two hours at one sitting.

And with Polyphony being insatiable, 27 of *GT2*'s car manufacturers also offer a single make/model series (some Japanese companies offer up to five meetings). Most are split into production and race-prepared categories.

If, for some unimaginable reason, all this fails to quench your videogame racing thirst, then bear in mind that so far nothing has been said of *GT2*'s arcade mode, which is delivered on a second disc.

Without finances or tuning to worry about, a generous selection of vehicles and tracks are immediately available (cars owned in *GT* mode can also be raced in arcade) and the game boasts its own structure, including Polyphony's now-traditional Goodies section. And what an incentive for players to finish the arcade game.

Improvements over *GT* are likely to be wasted on the casual observer. Visually, the enhancements are subtle, with slightly more detailed vehicles and track backgrounds, while the dynamics are further refined and remain unrivalled. Crucially, the AI has been polished – don't be surprised to be given a harder time or witness the odd CPU opponent oversteering itself out of a race.

But as astounding as this game is, it remains an evolutionary rather than revolutionary step over its predecessor, and as such, it falls short of a ten. But you'd be surprised just how close it gets.

Which is not to say it's without flaws. The menu selection structure is often laborious, while collision detection isn't impeccable (a little merging between cars occasionally occurs), and loading times can seem surprisingly long. Fear not, though, as not one of these concerns affects the title's magnificent gameplay.

Few games are so competent that they singlehandedly renew your passion for videogaming. Fewer still captivate you to the point of dangerously disrupting your sleep patterns. *Gran Turismo 2* is such a title, representing the most complete, most playable and most engrossing racing title to ever have graced a videogaming format.

Edge rating:

Nine out of ten



Of *GT2*'s 34 manufacturers, 27 offer a single model/make series

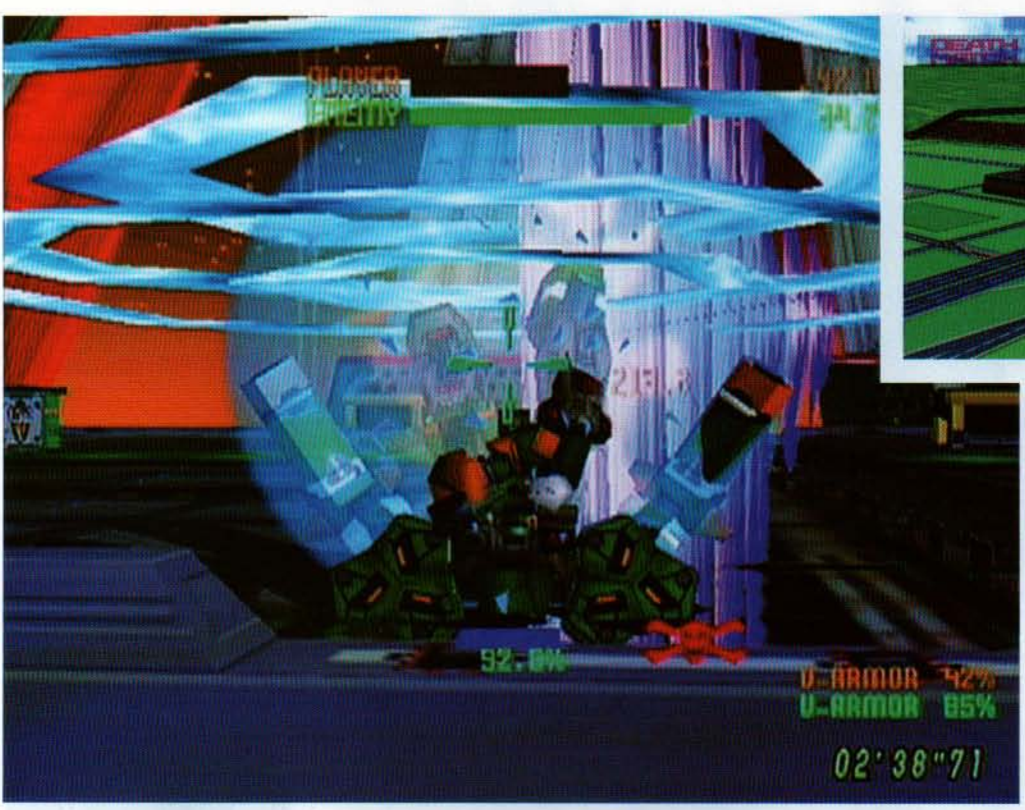






Shop for alloys (top); compete against a friend in the reasonably playable twoplayer mode; or tweak your car courtesy of a more comprehensive setup

VIRTUAL ON ORATORIO TANGRAM









Supporting splitscreen (right), linkup cable and Internet modes, *VOOT* works harder than most games to deliver the superior thrills of head-to-head battle. It excels in visual terms, too, offering a decent facsimile of the coin-op original





As is to be expected from a Sega title, presentation is exceptional, with great intro sections

Regardless of age and experience, when you come to a *Virtual On* title for the first time you will briefly feel utter bewilderment and helplessness (not to mention mercilessly brutal defeat) as you attempt to get to grips with the innovative controls and the complex context-sensitive moves. Don't worry. It happens. You'll need to reach a certain plateau of competence before you can hope to appreciate its virtues.

When the original *Virtual On* was converted for the Saturn, arcade perfection was never seriously anticipated. The tricks employed to simulate genuine transparency were clever enough then to appease fans. *VOOT* for DC shows the gap between arcade and console closing dramatically. Fans of the coin-op should have no hesitation in acquiring this high-quality conversion of Sega's pyrotechnic mobile-suit one-on-one. Twoplayer matches are supported by splitscreen, linkup cable and even pay-as-you-play Internet connection (though only in Japan, right now).

Every trigger/turbo combination is context sensitive, depending on whether you're stationary, crouching, dashing or flying, so even with trial and error it takes longer than usual to establish the precise role and effectiveness of each weapon mode.

Instead of playing like a tank battle, there's more of a beat 'em up sensibility to *VOOT*'s intricate rule set of timings and character-versus-character techniques. All weapons need time to recover after discharge, so attacking is expensive. Tactical elements involve not just evading and retaliating but judging ranges and choosing the correct means of attack. When you find yourself weaving through homing missiles and closing on an opponent to deliver a killing blow before the weapons have fully recharged, *VOOT* delivers its finest gaming moments.

The basic gameplay of *Virtual On* remains intact, but there are enough changes to make it feel like more than a mere update. Arenas are now much larger, but the dash speed counters this to a degree and exchanges are, if anything, faster. The furniture on each level has been reduced to a few crucial obstacles. Opponents can circle or hide around them, or obscure the launching of lob shots.

The number of moves has also increased, predictably, but the extra hand-to-hand attacks are especially welcome (*VO*'s dirty jump-cancel dodgers will find their evasion trick has been noted and dealt with).

Those distinctive, classy mecha





Format: **Dreamcast**

Publisher: **Sega**

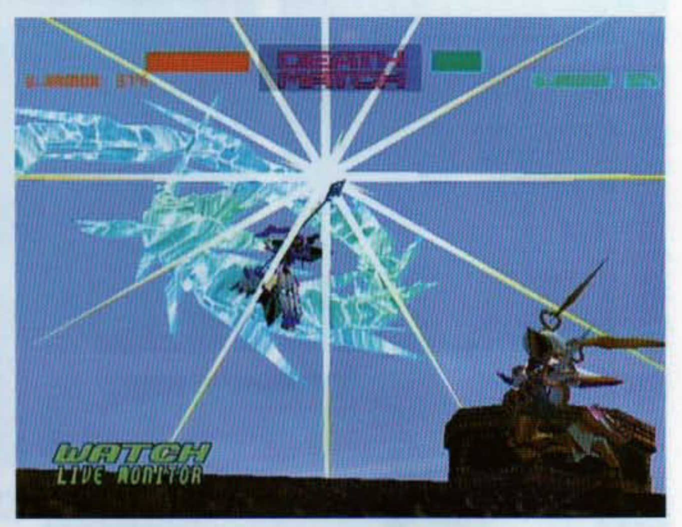
Developer: **In-house**

Price: **¥5,800 (£35)**

Release: **Out now (Japan)**







As likely as it is to deter less committed players, the steep learning curve is also the key to *Virtual On Oratorio Tangram*'s appeal for the more devoted fighting gamers out there. Trivia point: you can now spot a Dreamcast console built in to the back of each mech, superseding the original *Virtual On*'s spinning Saturn CDs

designs are the work of artist Hajime Katoki, whose recent credits include the Japanese TV anime 'Gundam-W'. The result is a roster of highly anthropomorphized characters that all possess more speed and agility in feel than might be expected after the clunkiness assumed by giant battle suits in western games.

Even Sega's associated Twin Stick controller has a lightweight, micro-switch sensitivity that actually matches the feel of the game, rather than turning it into a JCB sim.

Play with the standard pad and you will lose some of the charm, the steering aspect of the arcade cabinet being compromised by its simplicity.

While not exactly a criticism, *VOOT* does have drawbacks in the self-imposed limits of its appeal. The complexity of mecha control renders it inaccessible to a mainstream audience, while its unique styling reduces it further to a niche interest. The DC's impressive visuals can carry it on a superficial level but at its heart this is a hardcore game for hardcore gamers.

> **When you find yourself** weaving through homing missiles **and closing on an opponent** with a killing blow before the weapons **have fully discharged, *VOOT*** delivers its finest gaming moments

The casual player will soon lose his or her appetite. It's no surprise to discover that the *Virtual On* series has quietly attracted a small but devoted following, just as Neo-Geo beat 'em ups and *Street Fighter* instalments can still command the respect of players worldwide without hope of ever denting international best-seller lists again.

But *VOOT* isn't in quite the same league and demonstrates that a depth of combat system doesn't automatically guarantee depth of interest. As exhilarating as it can be, *VOOT* is just as likely as its predecessor to divide those core gamers into camps of utter dedication and blasé indifference in the long term.

Edge isn't renowned for gaming tips, but here's a smart one. Get a small metal cash box and sit it beside your DC. Stick a quid in the slot every time you play and see just how quickly you can psychologically recover your initial outlay. As arcade ports go, this is a stunning conversion.

Edge rating:

Seven out of ten

MESSIAH







Cops brandishing double-barrelled machine guns are just the sort of characters you should avoid when Bob is without a friendly host body to hide inside

There are more than 20 different character classes. Possession of each lets Bob gain access to specific areas and operate machinery

If there's one feature that defines Shiny's games, it's zany humour. It's not a quality much in evidence in videogames, but certainly one that needs to be encouraged in these times of realism, historical accuracy and boil-in-the-bag seriousness.

By laughing at their work, Dave Perry and his band of merry pranksters gain the potential to defuse the current vogue of po-faced adultness. Crucially, the off-the-wall antics of Earthworm Jim and dark surrealism of *MDK*'s Kurt Hectic were the core features upon which gameplay was constructed.

And so it is with Bob, the cherub hero of *Messiah*. Resplendent with dove-white wings and diaper, he is a disarming character. The patter of tiny feet as he manoeuvres through a violent and unsettling world is a constant reminder that the little fellow isn't the hulking space marine everyone now expects to play in action shooters.

Bob is an alarmingly weak and vulnerable angel. In the world he inhabits, police have large guns and orders to shoot on sight. Unable to carry any weapons or activate much useful machinery, his only gift is his ability to possess all creatures with a soul. And as a one-sentence design brief, it's hard to think of anything as elegant. *Tetris*' 'falling blocks you can rotate to neatly stack' gets close, but the simplicity of 'if it moves, possess it' is hard to fault.

It also makes for a refreshing change to the usual way of playing what is, at heart, a thirdperson action game. Because instead of trying to keep your character alive, the key to *Messiah* is to ensure the possessed is as close as possible to another potential host, should Bob need to switch bodies in a hurry.

On occasion, *Messiah* is positively vampiric; the best way to clear a room of aggressive policemen is to jump from body to body, sucking health as you go. Another useful trick is to throw a host over the edge of a fatal drop, depossessing at the vital point and then padding carefully around to find another victim. It also means that *Messiah* circumvents the childish business of dotting levels with health powerups.

The importance of possession is underlined by *Messiah*'s difficulty ratings – organised by the ease with





Format: **PC**

Publisher: **Virgin Interactive**

Developer: **Shiny Ent.**

Price: **£30**

Release: **Out now**





In some levels, Bob has to use his flying ability (right). The muscular benefits of a possessed behemoth are more fun, however (above)





Suggesting, once again, that the future will be a paradise for little boys, the later levels of *Messiah* are filled by pimps, prostitutes and men in dirty raincoats

Vulnerable cherub Bob stumbles through a violent world in white wings and diaper. Police have **large guns and orders** to shoot on sight. Hardly the hulking space **marine you all expect to play**

which Bob can possess a character. Playing in the Prophet mode, for example, Bob is thrown out of a dying body with his health intact, whereas in the Messiah mode, if the host dies, Bob's toast too.

And yet *Messiah*'s elegance is also its downfall. By turning the conventional wisdom that each character class in a game is defined by its interaction with the playable character on its head (and making all characters playable), Shiny has created a monster.

It would be possible to make *Messiah* a hugely non-linear game with as many different routes through the game as there are character classes. But with over 20 types, that would take a team the size of *Shenmue*'s to produce. With the pressure of its infamous delays, Shiny was forced to limit the game's scope, restricting it to a straitjacket.

This has made *Messiah* an ultimately disappointing experience. Instead of having to hunt down elusive characters to open up special areas, the game too quickly becomes a linear mush of jumping from character to character.

And, as is common with such cross-genre games, there are some jarring moments, particularly during a couple of hardcore platformer sections which seem to have been lifted straight from *MDK*.

Maybe, like *Shadowman*, the game will improve when ported to Dreamcast. Certainly *Messiah* has a console feel to it, although considering the amount of keys it uses, the control method will need to be carefully considered.

As with most of Shiny's titles, there is something loveable about *Messiah*. But the bigger question hanging over the company now is how to convert critical acclaim and offbeat ideas into sales.

Just as games can be too clever, they can also try too hard to be funny. And humour is notoriously subjective. *Messiah* had the potential to be the real thing, but it's not. Bob is no one's saviour, just another very naughty boy pretending to be something he's not.

Edge rating:

Seven out of ten



One of the neat touches of *Messiah* is its aiming system, which simply indicates if you are being targeted

QUAKE III: ARENA





Textures and lighting effects are exceptional, although effects such as realtime shadows result in a serious performance hit on average-spec PCs







Skeletal animation may have been dropped at the last minute, but id's character models are still leagues ahead of the competition



The levels' architecture veers wildly from the genre's traditional gothic and medieval tones to futuristic and organic-looking arenas. It's a heady mix

A gap has always existed between the games of id Software and those of its PC competitors. With every new release from John Carmack and Jon Romero, it seemed a new era in gaming was born – from the revolutionary pseudo-3D *Wolfenstein*, which established the firstperson shooter genre, to the meticulous physics and benchmark-setting engine technology of *Quake II*.

The day may have passed when the Texan developer could shock the world with its latest release, but what *Quake III: Arena* does achieve is nothing less than a radical new shift in the gameplay paradigm.

Epic got there first with its deathmatch-inspired *Unreal Tournament*, but *Arena* goes one step further, refining the firstperson experience into something of an art form. Its constituent elements are few (some might argue, too few). Many of the nine weapons return from previous id games and only deathmatch and capture the flag game types are offered. And there's essentially little more to the game than fragging human or bot enemies to progress to the next level.

Yet its console-style interface, icons, and play remit actually disguise arguably the most technologically advanced PC game ever made. The new engine is a masterpiece of coding. The much-hyped bezier curved surfaces transform the maps, enabling truly organic architecture, pulsating HR Giger-style pipes, and beautiful arched doorways. (The sheer speed of the action makes measured appreciation of the surroundings fatal.)

Whether using the five power-ups (regeneration, quad damage, haste, invisibility, flight) hidden in the levels, or simply slugging it out with rockets, grenades, and shotgun shells, *Arena* is the nearest gaming gets to sport.

Like other FPSs, it's not simple to control. Keyboard and mouse used in conjunction are essential. From the physics model that allows for self-propelling rocket jumps and mid-air acrobatics, to your arsenal of disparate weaponry, *Arena*'s gameworld feels right. It may not be realistic (running speed has been ramped up, and player models are more diverse than ever), but *Trespasser*'s pedestrian pace and a fiddly control system demonstrated why realism was never a good idea.

Indeed, much of *Arena* appears to have been inspired by old-school beat 'em ups and 2D platform games. Bounce pads of the type seen in the *Sonic The Hedgehog* series litter the maps, while a gloriously over-the-top





Format: **PC**

Publisher: **Activision**

Developer: **Id Software**

Price: **£35**

Release: **Out now**







The much-criticised grey and brown colour scheme of the first two games still rears its ugly head (top) but id's artists have introduced splashes of primary colour, with varying results. The levels set in space (above centre) are particularly striking

commentator bellows the score and other power-up-related quips during the action. It's akin to *Mortal Kombat*.

Straight deathmatch is divided into six tiers, each housing three standard maps and one tournament (boss) level. The latter are always tense, one-on-one affairs, and at the higher of the five skill levels prove immensely challenging, even for experienced players. (The ladder-style level construction sees rendered intermissions entering the mix. Sadly, even with help from neighbour Digital Anvil, the video clips are dull, grainy and superfluous.)

> **Epic was there first** with its deathmatch-inspired *Unreal* ***Tournament*****, but *Arena*** has refined the firstperson **experience into something** of an art form

Compared to those in *Unreal Tournament* and *Half-Life*, the AI bots lack a balanced skill set and rely on repetitive pinpoint railgun shooting from a distance. And the way you negotiate the levels is set in stone – time and again, nearby power-ups are ignored. During CTF the bots' behaviour often surprises, and although they recognise a large set of typed commands, they occasionally appear to ignore them altogether.

Shortcut key commands are also absent, leaving you to type long strings into the command line during battle. *Unreal Tournament*'s drop-down menu system was clumsy during a fracas but it did at least allow you to enter complex commands with relative speed.

That aside, *Arena* remains as impressively fast, smooth, and enjoyable as anything from id. As a straight deathmatch it is unsurpassed and will doubtless still be played in three years' time, thanks to its easy-to-modify codebase. But as an enjoyable singleplayer experience it pales in comparison to *Half-Life*. The future of gaming or a slight hiccup in id's otherwise exemplary CV? Time will surely tell.

Edge rating:

Eight out of ten



Mirrored and chromed surfaces can look simply astounding

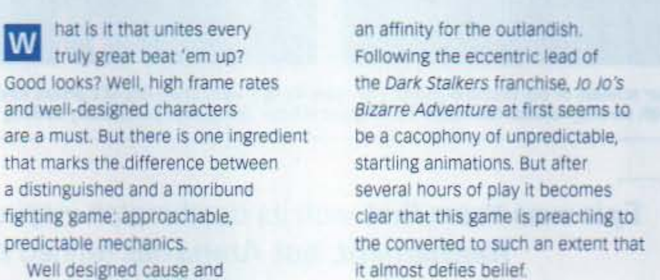


The nine-strong arsenal differs little from *Quake II*'s, although the lightning gun (above) makes a welcome return from the series' first outing

JO JO'S BIZARRE ADVENTURE

Format: **Dreamcast**
Publisher: **Capcom**
Developer: **In-house**
Price: **¥5,800 (£35)**
Release: **Out now (Japan)**





Incomprehensible? Spot the aggressor. In this shot it's pretty easy to do so with confidence. Often, however, Capcom's spectacular sprites are no more than clashes of bitmaps, lending an unwelcome air of confusion to the action







Like its Capcom stablemates, *Bizarre Adventure*'s super attacks are truly outlandish, lavishly animated events (top)







By using the Stand (above), players can continually launch two attacks at once. The timing must be precise, but the end results are satisfying

What is it that unites every truly great beat 'em up? Good looks? Well, high frame rates and well-designed characters are a must. But there is one ingredient that marks the difference between a distinguished and a moribund fighting game: approachable, predictable mechanics.

Well designed cause and effect dynamics allow a player to intuitively react to any given situation, recognise moves and combos and be able to instantly execute a telling block or riposte.

But while the *Street Fighter* series continues to offer its balanced, approachable style of combat, Capcom obviously has an affinity for the outlandish. Following the eccentric lead of the *Dark Stalkers* franchise, *Jo Jo's Bizarre Adventure* at first seems to be a cacophony of unpredictable, startling animations. But after several hours of play it becomes clear that this game is preaching to the converted to such an extent that it almost defies belief.

It's frustrating, because *Bizarre Adventure* actually has many hallmarks common to Capcom's best works. Unlike *Street Fighter Alpha 3*, it is evidently programmed for the Dreamcast. This is no second-rate PlayStation port or a scruffy rush job. Its artwork and presentational values are of a typically high standard.

Capcom has included both *Jo Jo* games in the package – the eponymous first episode and its sequel, *Miraihe no Isan* (literally 'Heritage for the Future'). With the secrets, quirks and characters to master in both, there is only one real problem: many people will find it incomprehensible.

The game has a learning curve pitched on a predominately horizontal plane, and for all but the most voracious consumer of all things Capcom, *Bizarre Adventure* is too niche, too exclusive, by half.

Even design elements common to its stablemates feel awkward. Its Stand feature, for example, which sees fighters summoning forth a spirit accomplice to land blows on their behalf or perform team-up attacks, is an uncomfortable, unwieldy permutation of a design brief introduced in the *X-Men* games.

Almost every aspect of *Jo Jo's Bizarre Adventure* is a discourse for the devout. For that reason, this is a title for fanatics alone. Perhaps that was Capcom's intention.





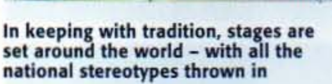
The overuse of projectile attacks allows cheap victories from afar. Some will consider this an idiosyncrasy, while others will deem it a heavy flaw

Edge rating:

Five out of ten

STREET FIGHTER III: W IMPACT




In keeping with tradition, stages are set around the world – with all the national stereotypes thrown in







There's more graphical detail than ever before. In the Amazon, for example, a minor earthquake sees the entire backdrop changing

Format: **Dreamcast** (both versions tested)

Publisher: **Capcom**

Developer: **In-house**

Price: **£40**

Release: **Out now (Japan) TBC (UK)**









Though many of the game's characters are interesting, few have the charm of, say, the long-forgotten E Honda

For a TV soap, the departure of a staple character can be a disaster (and usually involves a narrative equivalent). A strong, established cast list is a virtue. New additions are desirable, to prevent any given formula from going stale, but how many programmes would have the guts to discard all but two of their most popular figures?

It's widely mooted that the majority of *Street Fighter* players prefer Ken or Ryu. They are the Den and Angie, or Grant and Tiffany, of the beat 'em up world – although, unlike those particular pairings, there is little chance of a separation.

Looking at the supporting cast in *Street Fighter III*, it's hard to pick even one new antagonist who will enjoy a fraction of their fame. But the new additions are excellently drawn and animated, and generally speaking their moves are exquisitely balanced with those of their peers, leading to highly dynamic but fair battles.

Is it mere coincidence, though, that post-16bit *Street Fighter* updates enjoying genuine success outside of Japan are those which retain or reintroduce past favourites? Surely not.

On a technical level, this Dreamcast conversion is everything that *Street Fighter Alpha 3* should have been. It has a higher, crisper resolution, and it runs comfortably and with remarkable pace, at 60fps. Its character sprites are large and distinct, and the backdrops are consistently good.

Most importantly, the standard of animation throughout is perhaps the best viewed so far on a home console. Although still many frames short of its more fluid, poly-based peers, *Street Fighter III* marks a solid progression.

In a move to appease hardcore gamers with authenticity and the mainstream with added value, *SFIII: W Impact* includes two flavours of the arcade original as separate games. Bar tweaks to the Super Arts system and a few extra playable characters, only the devotee will discern any real differences between the two. And, unusually, it would be just to say that both are arcade perfect.

As with other Capcom fighting games on the Dreamcast, though, a joystick or pad of different design is a requisite. Sega's unaptly designed offering is simply inadequate.

The perfect *Street Fighter* game Sega's machine would be a title that could comprise the many characters and extra singleplayer modes of *SFA3* with the accomplished coding of *SFIII:WI*. The former is a lame port, the latter lacks personality. However, for the traditional Ryu-vs-Ken multiplayer face-offs, *Street Fighter III* is an accomplished experience. And isn't that, after all, what most gamers want?

Edge rating:

Seven out of ten

SPACE CHANNEL 5

Format: **Dreamcast**

Publisher: **Sega**

Developer: **In-house**

Price: **¥5,800 (£35)**

Release: **Out now (Japan)**









Progress throughout the game involves hitting percentage targets – your rate increases when you eliminate baddies by shooting them in time with the music (above left). Musicians bring new sounds to the audio mix (main)





Prerendered sequences are simplistic in nature but wonderfully stylised, evoking a uniquely kitsch flavour



It's no secret that creating glitzy polygon models and soaring audio tracks for videogames isn't rocket science. Granted, such disciplines represent hard graft and talent, but imbuing a game with real charisma stands as an accomplishment of altogether greater gravity. And that's exactly what Tetsuya Mizuguchi and his team working in the heart of Tokyo's funky Shibuya has done with *Space Channel 5* – this game oozes character from every polygonal surface. While it may be a rhythm-action title working more or less within established confines, its presentation gives it a vibrancy and energy that most games would kill for.

Lead character Ulala – a reporter for the eponymous 25th century TV news show – is fundamental to the game's allure. In static shots she may look like so many other unusually proportioned heroines to have emerged from Japan, but in motion she comes alive, her swinging limbs and extravagant posturing serving to instantly relegate Lara Croft to near-Bella Emberg status.

Ulala and the companions she 'recruits' throughout the game are gloriously rendered in real time, but the characters and backdrops that make up the rest of the onscreen action streams from GD as you play. The resulting action is therefore limited, but that could be said of all rhythm-action games. At least *Space Channel 5* works supremely professionally with such constraints, generating its own brand of Simon Says-style gameplay that's at least the match of any other similarly themed title. And while the action involves copying dance moves, Ulala must also shoot energy beams at baddies to destroy them, and blast 'friendly fire' to attract NPCs, the mix of the two styles serving to provide a fresh spin.

Though its longterm appeal is naturally limited, *Space Channel 5* is an absurdly appealing novelty title, with inspirationally showy musical content composed with real flair. If nothing else, it should serve as a springboard for a character destined for bigger things.



Edge rating:

Six out of ten





Boss characters are of the rotund variety, and are typical of the game's distinctive visual approach. That is: anything goes, so long as it's unusual

MAKEN X

Format: **Dreamcast**
Publisher: **Atlus**
Developer: **In-house**
Price: **¥5,800 (£35)**
Release: **Out now (Japan); spring (UK)**











There is a wealth of disturbing Nazi imagery in the game, from Swastika-adorned kamikaze dogs, whose mouths have been replaced with grenades, to faceless nazi stormtroopers









Although rather linear and graphically unimpressive, *Maken X*'s levels are plentiful. They are accessed via a world map, with locations such as London and the Vatican

A cursory glance at its screenshots reveals that *Maken X* is a firstperson action game but, rather than producing a clichéd *Doom* clone, Atlus has developed something unexpectedly original. Perhaps best described as a slash 'em up adventure, *Maken X* is an interesting take on the firstperson genre. Instead of blasting everything in sight with ever more elaborate guns, it uses swords and blades in frantic close combat.

The importance of its narrative also separates the game from less plot-driven rivals. The game begins with the eponymous Maken sword being generated in a lab. As the strangely organic weapon takes shape, a monster in military garb bursts in and starts killing people with projectile razors fired from his tongue. (See? It *is* original.)

In the chaos, the professor in charge of the Maken experiment is kidnapped. You take the role of his young daughter, grab the mysterious sword and set out on his rescue.

Integral though the story is, an inability to fully comprehend its Japanese language intricacies doesn't prevent total immersion. There are basic platform jumping and puzzle-solving elements, but the real meat of the game is the close-up-and-personal swordfighting action.

There is the capacity to hack away like a crazed lumberjack, but stealthier gamers will take advantage of *Maken X*'s more subtle combat options. Using a similar system to *Legend of Zelda*, you can lock on to an enemy and employ all the available tactics, such as strafing around an assailant or jumping over them and striking from behind.

It makes a refreshing change to see the whites of the enemies' eyes while engaging in firstperson combat. But, if you pine for long-range fragging action, distant opponents can be engaged by charging weapons and unleashing projectile attacks.

In keeping with what appears to be a spreading videogame trend, *Maken X* enables the possession of other bodies through the power of the sword. Unlike *Messiah* and *The Nomad Soul*, however, you can't transfer to any passing individual, instead being limited to certain set characters who become available after being defeated in battle.

Despite this restriction, the ability to change between characters is a welcome one and with each playable cipher having different weapons and power, speed and jumping statistics, it offers huge variety.

Negative factors, such as uninspired level design and the lack of any multiplayer deathmatch modes, prevent *Maken X* from challenging firstperson classics such as *Half-Life* and *GoldenEye*. However, it is an enjoyable new slant on the genre and its sheer size and fairly innovative gameplay elements make it worthy of consideration by Dreamcast owners starved of serious adventure titles.

Edge rating:

Six out of ten

RUNABOUT 2

Format: **PlayStation**

Publisher: **Climax**

Developer: **Digital Works**

Price: **¥5,800 (£35)**

Release: **Out now (Japan); TBC (UK)**







Graphically, *Runabout 2* is more than a little on the shoddy side. Rarely does the game's 3D engine manage to generate anything beyond perfunctory





Although none of the vehicles are officially licensed, it's not too hard to work out the models, such as the original Fiat 500 (above)





Running out of fuel? Just pull up at the nearest petrol station. Not that you have time to waste obtaining fuel which you do not need to finish the level, mind

Anyone convinced *Driver* is such a revolutionary title would do well to take 1997 PlayStation title *Runabout* for a spin, for some of the things that the great unwashed seemed so shocked and enthralled by in *Driver* were previously offered in Climax's game. And these things can also be found in this sequel.

Indeed, seasoned *Runabouters* will find everything in *Runabout 2* to be very familiar. The general idea, of reaching a certain point or performing a certain task within a strict time limit, remains. But as with most sequels, a few new elements have been introduced.

Jobs are now offered via email and will prove a mostly useless feature for non-Japanese speakers, but, thankfully, the onscreen map detailing your route breaks through any potential language barriers.

While the email gimmick tries its best to hide the game's mostly linear characteristics, occasional choices between two missions must be made. And unless you suddenly develop the ability to decipher kanji characters, the decision should hardly pose a life-threatening dilemma: just pick one.



The passable physics make car control a little awkward at first

Also similar to the original game is the car selection. Initially, just five are available, but within a couple of missions you'll manage to work out how to unlock some of the 26 extra vehicles.

Some, like the Ferrari 250, the Shelby Cobra, and Toyota Corolla WRC, are seriously impressive, while others, such as the dragster, a tractor, and the missile carrier, are plain daft.

Rushing through civilian traffic, looking for shortcuts and destroying scenery is good fun, naturally. But *Runabout 2* isn't the most polished game around (in just about every regard), and with only 13 missions available it shouldn't take a determined player longer than half a day to complete.

Of course, there is a selection of hidden vehicles and items to collect from the various locations. These provide a reasonable amount of replayability, but despite offering more limited gameplay aspects, *Runabout 2*'s predecessor ultimately remains the better videogame.

Edge rating:

Five out of ten

Carmack's big handout: Quake let loose to open source hackers







Some of the more interesting modes made using *Quake* code include games such as (from top): *KillerQuake, Quess* and *QuakeRally*

The popularity of the original *Quake* is still rising thanks to id's decision to release the game's code. There has been plenty of interest in continuing to modify and improve the code – which is already the most modified game in the world.

Two of the key directions, focusing on the code's cross-platform portability and backward compatibility, have been underlined by John Carmack. It is now available in a 3.2Mb download from **ftp.idsoftware.com/idstuff source/q1source**. This provides the complete code for *Quake* variants including winquake, glquake, quakeworld and glquakeworld.

And early postings on message forums have demonstrated plenty of avenues people want to explore. Java, Perl and Direct3D versions of the code have been proposed, along with more conventional upgrades, such as making it harder to cheat during online games and improving volumetric fog and the opacity of water textures.

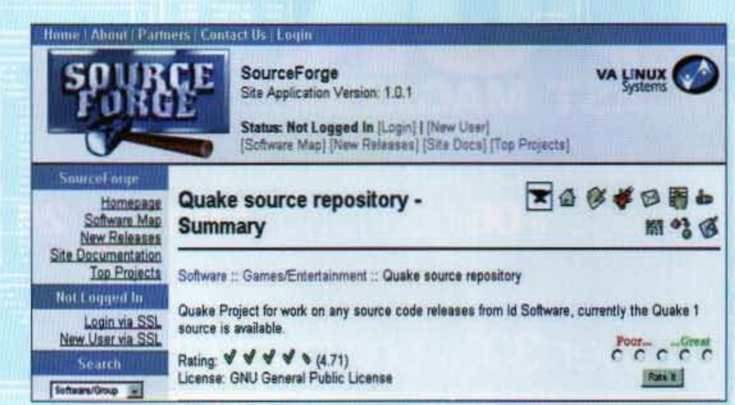
One of the biggest challenges will be to ensure compatibility in all the different versions of the code that will be generated. A key step to overcoming



The view inside *Quake* using undirected coloured light sampling as a test

this is the Quake Source Repository. This has been set up to act as the definitive site for any upgrades to the source code. Hosted as part of the open-source community at SourceForge.com, the QSR is a network for maintaining a mailing list and message forums, plus tracking bugs and archiving code. Control of the update source code is maintained using Concurrent Version System (CVS), which records the history of source files and documents. In this way, new versions of the original *Quake* source code can be controlled.

One implication of id's decision is that developers can do anything they want with the code – including selling new versions of the game. Previous releases of the *Quake* code couldn't be commercially exploited. Under the terms of the GNU public licence through which it is released, if new versions of the game are distributed then their source code must also be made available to the open-source community. **E**





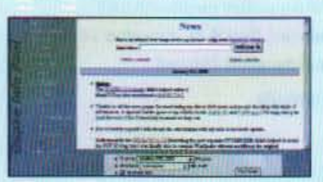
Quake Source Repository
sourceforge.net/project/?form_grp=882
This is the heart of the *Quake* open-source project: the place where bugs are tracked and the most up-to-date versions of the code are held. It also hosts the forums that direct the way the code is developed. After only a month, the *Quake* repository is already the biggest open source site on sourceforge



Quake Information Pool
www.inside3d.com/qip/home.shtml
A fan-run site that maintains buglists, a mailing list and contain patches



Quake Engine Resources
www.planetquake.com/qer
Dedicated to the modification of the *Quake* and *Quake III* engines



Quake Standards Group
qsg.telefragged.com
Shares a mailing list with QIP and also contains a good range of tutorials

The trials of a start-up developer: part 19

After co-founding Lionhead Studios with Peter Molyneux, Demis Hassabis set up his own development house, Elixir Studios. In the latest instalment of his exclusive diary, he lays out the challenge of creating 1,500 personalities for *Republic*'s characters

The past month has been a strange one for us. For the previous18 months we were working in isolation. Very few people outside the company knew what we were toiling away on.

Then we broke our silence and demonstrated our first game, *Republic: The Revolution*, to the press. We've encountered some pretty extreme reactions. Never answer your critics and never make the mistake of getting drawn into a slagging match. Let your game do the talking.

As I was driving the team towards Christmas, everyone was exhausted. The temptation was to slow down, but we couldn't afford to do that. Time is short. E3 is a big target for us and we have much to do before then.

Our priority is to have our first living city running. This will be a city of 10,000 people wandering around, in full 3D, living their daily lives.

The going has been tough. Every morning, emaciated programmers shamble into the office on their way to another shift. We've added another couple of people to the team, taking us to 20.

I reckon that *Republic: The Revolution*'s AI is about one thousand times more complex than *Theme Park*'s, so we've added a fourth AI programmer, Martin Smith.

Had I written a CV to fit the job, I would've been hard pressed to have come up with one as impressive as Martin's. He left school at 18 and went to work for Avalon Hill, where he playtested the original Civilisation board game, among other things.

He owns and has played every one of Avalon Hill's games (about 200 of them). He then went off to the US and became a professional poker player for three years. He came back and did a degree, then a PHD in artificial intelligence. He's also a good footballer, which is useful, as the Elixir football team has been defunct some time, on account of being crap.

We have a new non executive director, David Norwood, a banker. And he's no ordinary merchant banker. He managed to get himself into *The Sun* while captaining the England chess team, at the World Championships in Kalmykia, a couple of years ago. The team hadn't performed well and David was invited to a gala dinner, where he drank vodka with his Kalmykian hosts. Lots of it. And passed out.

One of the Scottish team members took a picture of him, lying inert, beneath a mountain of empty vodka bottles and gave it to *The Sun*. It was published.

And *The Sunday Telegraph* wrote: 'Feeling ashamed by the side's poor performance and vowing never to captain England again, Norwood said: "I think we all got worn down a bit by the vodka on offer." Though he did admit that his team drank less in Kalmykia than they did when they won the European championship last year'.

David has one of the sharpest business minds I know of. He advises on multimillion pound flotations in the City. Just because you do something that other people perceive to be highbrow doesn't mean you have to conform to the stereotype. You can be both scholar and party-goer, if you want.

In terms of the game, we've made a lot of ground in terms of some key design issues. We've spent the last month hammering out the simulation intelligence, which is about as hard as it gets, as pure design goes.

Four of us have been locked in a room for the last three weeks, trying to decide how to program, enumerate and describe the feelings of every person in the game. This involves inventing a set of relationships describing people's values, across issues such as nationalism, ethnicity and religion.

And to make matters worse, the players will never notice most of this work because we intend to present it in a simple way. Do they need to understand the causal relationship between poverty and crime? No. But we do.

'Four of us have been locked in a room for three weeks, trying to decide how to program, enumerate and describe the feelings of every person in the game... values across nationalism, ethnicity and religion'

They may not give a toss about an individual's socio-economic affiliations, but it's our job to ensure that the game works and that people behave in a coherent way. The game lives and dies on how well we achieve this.

We've also spent some time scripting out the important characters. I see these as being similar to Trump cards (anyone who's ever played Horror Top Trumps will know what I mean). Each character should be instantly recognisable to the player, with a history carried from game to game.

We've tried to create characters who are memorable, interesting and colourful. For example, we discover that Ludmilla Mironova, a town councillor, is 'a walking advertisement for Soviet era cosmetics, the living embodiment of the David Hockney school of make-up. Middle-aged, extremely fat and cunning'.

Eduard Satarov, who is a journalist, has 'a huge beer gut, florid complexion with thinning hair only barely concealed by a fantastic scrape-over'. Stupid details breathe life into otherwise two-dimensional characters.

Republic: The Revolution will have, I hope, around 1,500 of these key characters. I want each one to be unique and fascinating.

I hope that 2000 is going to be as good to us as 1999 was. That was a great year, and I feel we've been very fortunate, but we've also worked very hard indeed.

But you're never far from disaster in a transient and competitive industry. All you can do is put the hours in, close your eyes and hope that luck smiles kindly on you.



A tiny taster of *Republic*'s diverse character set. Elixir wants real personalities. Desirability wasn't in the brief



CYBERNATOR

As a new wave of giant mechas thunder their way around monitors thanks to the arrival of Dreamcast *Virtual On Oratorio Tangram* (see 76), **Edge** recalls one of history's most memorable showcases for the power of 50-feet-tall assault suits…





Level directives are spelled out before the action (top). Boss types come in many forms (above)

As their popularity among Japanese manga and anime series has grown like a virus, giant robots and outlandish combat suits have entered the world of the videogame with increasing regularity since their arrival in the days of the MSX. But these most monstrous of machines did not make a significant impact to gamers in the west until the early '90s, when Nipponese creatives gained access to technology that could realise their wilder imaginings, and *Cybernator* (aka *Assault Suits Valken* in its original Japanese guise) was many gamers' first proper taste of this most distinctive brand of fantastical action.

The *Virtual On* series goes to great lengths in establishing that taking control of robotic machinery is an imagined *art*, not something akin to simply sitting behind the wheel of a car, and in its own 2D way so too does *Cybernator*. Requiring use of just about every joypad button, and an appreciation of inertia, the game provides an experience that is occasionally painful, yet wholly rewarding with patience.

But *Cybernator*'s beauty lies beyond control: its ability to generate a genuine 'one soldier against all odds' spirit is matched by few other games, and its wavering storyline and explosive set pieces are further hallmarks of an action classic.











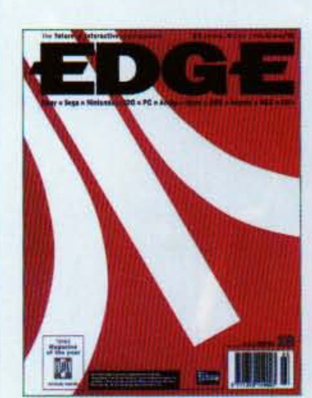


Cybernator uses the SNES's Mode 7 to generate unrelentingly brash washes of explosion effects (top), but more subtle uses of the 16bit console's technology frequently come into play (above, centre). For an action game, one of the most remarkable aspects of *Cybernator* is its narrative content (above)

Manufacturer: Konami	1993	Developer: NCS Corp	SNES

EDGEVIEW

The videogames world never stands still, riding the breaking wave of advancing technology. In this regular column **Edge** puts the industry's progress in perspective with a look at yesteryear's headlines: five years ago this month



Edge issue 18, March 1995



Gumpei Yokoi, the late genius behind the Game Boy, spoke to Edge about its unique successor

In the bad old days, when videogames inhabited the realm of geekdom, there was no annual Electronic Entertainment Expo. Instead, the industry had to pick its collective way through the Consumer Electronics Show, where, among the ranks of ill-fated Laserdisc players and overweight video cameras, the latest, shiniest videogames could be found. **Edge** 18 reported from the winter '95 event, which was to be the last of its kind. As the 32bit machines of Sony and Sega began to make progress in their native territory, at CES Nintendo attempted to breath new life into the SNES with the likes of *Star Fox 2* and *Kirby's Dream Course*, the former never making it to market (despite reaching completed status), the latter serving to illustrate just how arid Nintendo's dry spells could be.

But what was that cover all about? Atari's Jaguar was already well on its way to the dumping ground, and yet **E**18 delivered an eight-page feature entitled 'Atari: from boom to bust and back again', concluding that 'Atari might just surprise us all yet'. It wasn't clear then that the company's ineptitude would prove to be the biggest surprise of all.









Clockwise from top left: a report from the last CES to carry heavyweight videogame content; Edge takes an early shine to what would eventually become a coin-op legend; PlayStation *Toh Shin Den*; *Alone in the Dark 3*

Did they really say that?

Nintendo's **Gumpei Yokoi**: "Many people who have seen… these so-called next generation machines have already said that they just can't understand what the difference is…"

Did Edge really say that?

On the Saturn's chances of being a worldwide success: 'With AM2 behind it, it's certainly difficult to see how it will fail.'

Testscreens (and ratings)

Toh Shin Den (PlayStation; 8/10), *Clockwork Knight* (Saturn; 6/10), *Motor Toon Grand Prix* (PlayStation; 6/10), *Alone in the Dark 3* (PC; 7/10), *Samurai Shodown II* (Neo-Geo CD; 8/10), *Iron Soldier* (Jaguar; 8/10)

PIXELPERFECT

Every gamer has occasional moments of sparkling excitement, be it the first time *Speedball* booted up, or completing *Sabrewulf*. Here, **David Doak**, programmer/designer at Free Radical Design, celebrates the game that changed his career

My Pixel Perfect choice is Internet based. We're talking multiplayer, with computer-controlled bots and it boasts a whole range of tournament and team-based scenarios – of course this was all available well over five years ago.

Yep, it was the early '90s; 'www' was still just a typo and in our university computer lab we embarked on a desperate quest for something better than *Solitaire* to play on our Sun workstations.

In those days, point-and-click surfing was out of the question and command line access to the massive university FTP archives was still considered pretty fancy. But that was how we found it, the answer to all our prayers – *XPilot*.

For the uninitiated, *XPilot* is essentially an arcade multiplayer shooter, a massively enhanced descendant of *Thrust/Asteroids* which runs under X windows on Unix boxes (although I notice that it has recently been ported to the devil's own operating systems).

Today, the game looks graphically Spartan, and the uneducated may turn their noses up at its apparent simplicity. But beneath a 2D world with only 16 colours and line graphics beats a heart of pure gameplay honed by years of testing and refinement (check out **www.xpilot.org**). Above all, it's a game by the Internet for the Internet which certainly helped me to make the decision to quit academia for the gaming world.

Big thanks to Bjorn Stabell, Ken Ronny Schouten and Bert Gysbers for writing and maintaining it, to my old colleague Mike Smith for introducing me to it and to all those nightflies who used to hook up to our server at **bioch.ox.ac.uk** and wipe the floor with us.





***XPilot* opened up a web of intrigue for David Doak**



Tokyo is Spaced out

Japan: Sega is continuing its high-profile promotion for *Space Channel 5* as the game quick steps its way into stores. Adverts have been plastered across train stations to catch the eyes of Tokyo's busy commuters, while instore punters are treated to wall-to-wall coverage of the orange-clad futuristic presenter, Ulala.

Meanwhile, the revelation that Michael Jackson appears in the game, as a character called Space Michael, has generated further interest. It's his first foray into the world of computer games since the coin-op and Mega Drive hit *Moonwalker*.















From the involvement of Michael Jackson to the redecoration of shops and stations, Sega's doing everything it can to ensure *Space Channel 5* hits big. (The guy wearing shades indoors is Jake Kazdal, who worked on the title)



Fake plastic figures

UK: The ingenuity of Lara Croft's fanbase rarely ceases to amaze, so there was little surprise when a selection of her ample curves recently appeared prominently in a short film called 'Fantasy Figures', a documentary concerning the creations and obsessions of the UK's underground plastic modellers. Thankfully, compared with the range of trussed-up anime babes and pumped-up fantasy characters like *FAKK2*'s Julie Strain, England's all-action rose seemed to have avoided the worst excesses of the warped imagination. Still, they're a lot more interesting than the full-scale Laras made by German model maker Mark Klinnert. More info: **www.omerge.co.uk**



Custom-built erotic Lara kits straight from plastic modelling's underground scene – yours for a mere £50

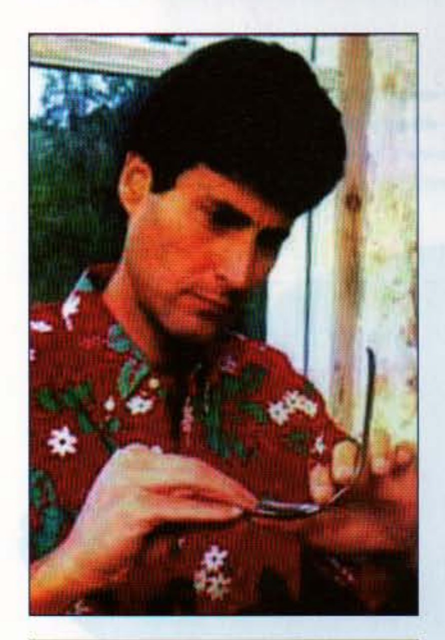








Geller sues over Pokémon



ユンゲラー ユリゲラー

Un Geller URI Geller

Japan: Four years after *Pokémon*'s Japanese release, renowned cutlery warper Uri Geller claims he has discovered similarities between his name and one of the characters, and is suing Nintendo for £60m for using his image without permission. Two evolved forms of the psychic Pokémon, Kadabra and Alakazam, are featured holding spoons, and in their native territory are known as Un-geller. Geller says he was alerted when Japanese children asked him to sign playing cards of the characters at Tokyo's Pokémon Centre.



Uri Geller and his alleged Pokémon doppleganger Kadabra (Un-geller)

Killing music

US: Industrial rockman James Grote has released 'Songs for Deathmatch Vol.2'. After all, 100 hours into fragging and any soundtrack will start to wear thin. It mirrors the original Nine Inch Nails soundtrack for *Quake*, and tracks include such gems as 'Alienation' and 'Razor's Edge'. Grote's first release was recently namechecked by John Romero. The $10 CD is available from **www.songsfordeathmatch.com**







Joined at the spaceship

UK: There's a thin line between influence and plagiarism. Witness some inspired borrowing in Rage's shoot 'em up *Space Debris*, whose giant robots with revolving shields, large moving doors, and free-flying arenas where you must destroy generators owe more than a little to a certain Nintendo 64 classic set in space. Honestly, what must Shigeru Miyamoto think?



Spot the difference. One of these games is *Space Debris* from British codeshop Rage, the other *Lylat Wars* (aka *Star Fox 64*). Space shoot 'em ups all look alike nowadays, don't they?

Fastest rodent in the west

US: After years of plain functionality, 1999 was the year of the mouse. And now Microsoft's IntelliMouse Explorer and Logitech's Wingman Force Feedback mouse have been joined by a pure bred gaming mouse. The big noise about Razer's BoomSlang mice concerns its superior resolution: while normal mice run at around 400dpi, the BoomSlang comes in 1,000 ($70) and 2,000DPI ($100) versions. But unlike the latest Microsoft mice, the BoomSlang still uses a mouseball – although rotations are measured by a focused light source, and it has five buttons and a wheel, while two shoulder buttons can be used for strafing. It's compatible with PS/2 and USB connectors.





The most accurate fragging tool in the pack – and all for $70





Cheating telephone line

US: As Nintendo struggles with Japanese networking for the N64, every gamers' favourite cheat code provider has stepped into the gap in the States. Known for its GameShark range, InterAct has now taken its wares online with the Sharkwire product.

Originally designed as a way of downloading cheat codes simply, Sharkwire has developed into a safe intranet where it is safe to let little Johnnie roam around. There is no porn or other nasties, only honest-to-god cheat codes, strategy guides, games chat rooms, email and the opportunity to buy games and peripherals online.

The service costs $70 for the initial starter pack of keyboard, modem and software. The modem plugs into the cartridge slot on top of the N64. It also has a slot for a game cartridge so that cheat codes can be downloaded during a game. The monthly service charge is $10.

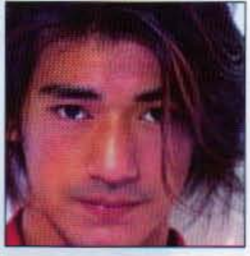


Nintendo won't bring networking to N64s outside of Japan, so Sharkwire has put together its own effort in the States



Separated at birth

Japan: With realistic faces being *de facto* shorthand for emotion in next-generation games (think *Shenmue* and Square's PlayStation2 demo), Capcom's latest screens from its PlayStation2 samurai survival title *Onimusha* demonstrate just how 'emotional' these games are going to be. The game's hero, Akechi Samanosuke, is based on Asian movie pin-up Takeshi Kaneshiro, and the resemblance is uncanny – right down to the dodgy barnet.





Walking, talking, virtual doll

Japan: It's been a few years since Kyoko Date, the first virtual girl project, appeared in Japan. But thanks to the power of PlayStation2, new life is about to be introduced into the genre in a 'game' that will let users create their own 3D computer-generated lovelies.

Called *Primal Image*, the simulation is already notable as it is one of the first titles to use middleware vendor MathEngine's realtime physics code to create a more realistic human representation.

Developed by Atlus and still shrouded in secrecy, *Primal Image* will use MathEngine's biomechanics technology to stimulate rigid body dynamics and model a skeleton's joints. Each girl's body shape, face and costume can be customised, and you will be able to create animations and email them to similarly infatuated otaku.





Taking up where Kyoko Date (far right) left off, *Primal Image* suggests how PlayStation2 will bring new emotions to gaming. Hmm

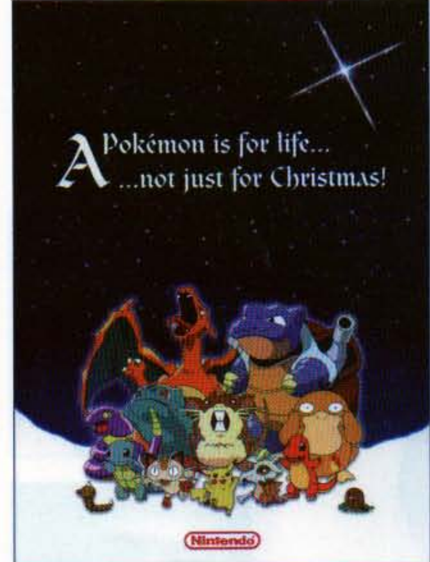


Seasonal paperwork

UK: Christmas is a time of year for giving – hopefully by loaded games publishers to hardworking hacks. But, sadly, apart from a cask of beer from Eidos, the only seasonal cheer in the **Edge** office was provided by a smattering of Christmas cards.

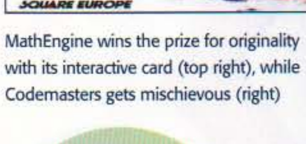
Renders of game characters wearing red furry hats were predictably popular choices of image, but when it came to inspired greetings, even Lionhead failed to muster anything particularly impressive ('Apey Christmas' indeed). Meanwhile, SCi's card depicting the demonisation of its staff showed that its art department isn't pushed for time. However, best implementation went to MathEngine's interactive particle systems effort – both a card and an advert for its technology. Economic or what?





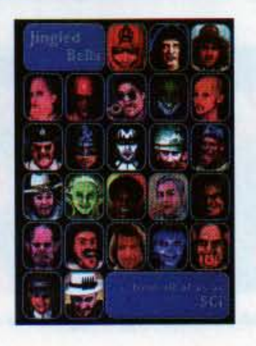




MathEngine wins the prize for originality with its interactive card (top right), while Codemasters gets mischievous (right)







DataStream



Position of Pokémon in a survey of British children's favourite characters: **third**
Total sales of *Pokémon Silver* and *Gold* in Japan by December: **3.3m**
First week sales of *Gran Turismo 2* in Japan: **815,430**
Downloads of *Messiah* from GameSpot.com: **42,000**
Downloads of ICQ chat program in 1999: **52,891,361**
Ranking of *Daikatana* in *Wired*'s annual Vaporware poll: **fifth**
Ranking of *Diablo II* in *Wired*'s annual Vaporware poll: **fourth**
Cost to EA for disappointing software sales of the N64 in the US (says Piper Jaffray): **$45m**
Price of the N64 console in Australia: **$63**
Cost of *DK64* in Australia: **$60**
UK households who own a PlayStation: **a quarter**
PlayStations sold in Japan from January to December: **2,081,828**
Dreamcasts sold in Japan, same period: **1,135,612**
Rise of Dreamcast hardware sales in America since October: **42 per cent**
Saturns sold in America: **1.1m**
Consoles considered a viable installed base by American publishers: **8m**
Consoles considered a viable installed base by Japanese publishers: **3m**
Gamers registered to pogo.com since its launch in June 1998: **5m**
Development cost of *Shenmue* to date: **£43m**
Numbers playing Hasbro's Em@il games: **100,000**
Copies of *Tomb Raider 4* Gameplay.com 'sold' for £1 during its sale: **4,000**
Value of pirate software seized by Essex trading standards in Operation Cybergeek: **£300,000**
PlayStations sold in Japan during first week of December: **17,221**
Dreamcasts sold in Japan, same period: **18,902**





Primal Scream
Xterminator
Creation

In the midst of the Creation label's implosion, it's appropriate the last release is from Primal Scream. They haven't always delivered on their potential, but did unleash some of the most uncompromising sounds of the '90s. And the pattern continues on 'Xterminator' – not a great album, but one that definitely has its moments. There's the hard high-energy of 'Swastika Eyes,' the electroclash of 'Accelerator', meshed with the extraordinarily gentle 'Keep Your Dreams'. The result is an eclectic, hard to handle mix. Alan McGee should smile.



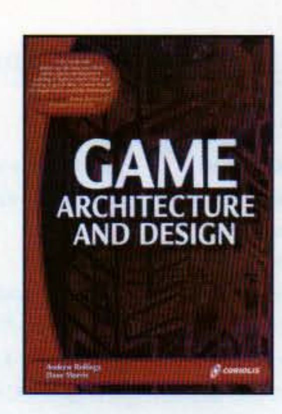
Morphine
The Night
Ryko

There's a valedictory feel to Morphine's fifth and final record – no surprise since shortly after its completion mainman Mark Sandman died of a heart attack. But it isn't just retrospective gloom that overshadows 'The Night'. Despite tinkering with additional instrumentation and female background singers, it's resolutely dark, even compared to previous albums. The film noir atmospherics are languid. Despite odd characteristic touches of humour in 'Top Floor Bottom Buzzer', this is Morphine at their most downbeat.



Laika
Good Looking Blues
Too Pure

From a melting pot of instrumental electronica and space-folk slip Laika. Acclaimed by Tricky and Radiohead, they bridge the gap between both. Laika are also the best sounding group ever to suffer the tag post-rock. Their highlight is the honeyed vocals of Margaret Fiedler. Haunting beats and an upward swing of melodies. An optimistic way to start the year.



Author: **Andrew Rollings and Dave Morris**
Publisher: **Coriolis**
ISBN: **1 57610 425 7**

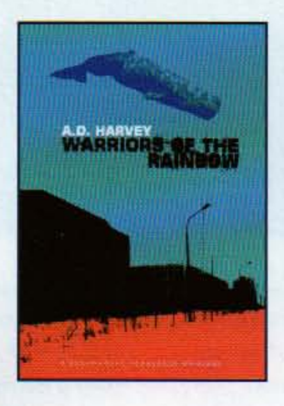
GAME ARCHITECTURE AND DESIGN

So few books take game development seriously. It's therefore a pleasure to recommend 'Game Architecture and Design', and not just because it says **Edge** is the coolest computer games magazine.

Weighing in at 742 pages (plus CD) and costing a mere £35, this is a tome that no would-be game designers will want to miss. There are countless professionals in the industry who would benefit a great deal from reading it, too.

In three chapters, it follows the rough cycle of a game from initial design through to team management and game architecture. For most, the first section, which sets out the basic weighs and balances that are crucial for solid game foundations, will be the most interesting. Particularly helpful are the case studies which punctuate the text, covering everything from the linearity of *Baldur's Gate* to the strategy of *Warzone 2100* and the use of character in *Outcast*.

One of the book's most refreshing aspects is how practical and up to date it is. It helps that the authors have experience of game design – they run a consultancy. Rollings was also involved with the development of *Warrior Kings* and *2020: Knife Edge* for Eidos. Producers such as Peter Molyneux, Dave Perry, Blizzard's Bill Roper and Ian Bell of *Elite* fame also discuss what makes a great game. The only disappointment is its focus on PC games in general and RTS-style games in particular. *Zelda*, *GoldenEye* and *Mario* don't get a look in. Suppose you have learn to walk before starting to run.



Author: **A D Harvey**
Publisher: **Bloomsbury**
ISBN: **0 7475 4732 7**

WARRIORS OF THE RAINBOW

The premise for the book (man comes out of prison; finds his girlfriend has died and been resurrected with an artificial brain) is not a particularly striking one. Nor is the overall setting, the collapse of Western Europe into a freezing ice-age, going to win any awards for originality. Still the mysterious A D Harvey manages to take these initial ideas and construct an impressive novelette which is strangely reminiscent of John Wyndham's hyper-realism mixed with a dash of the working class futurism of George Orwell.

Part science fiction, part ecological dystopia, almost everything about 'Warriors of the Rainbow' is peculiar. The protagonist is nameless, the plot is thin, and not much of note happens until the last fifth of the book. And yet there is an appealing atmosphere that lingers long after it has been completed. In this case, less is certainly more.





INTERNET
Site: The Games Project
URL: www.gamesproject.org

The Games Project is making a stand against the wickedness of *Doom* and *Resident Evil*. The project, set up in the US, raises concern that 'the majority of games are violent and portray women and ethnic minorities in demeaning and stereotypical ways'.

It helps parents find non-violent games to curb the ways of their rebellious youngsters. Its recommended top 10 features are *Bust A Move 2*, *Tetris*, *Theme Park*, *Absolute Pinball*, *Myst*, *NASCAR*, *The Incredible Machine*, *Front Page Sports: Golf* and *Earthworm Jim*.



VIEWPOINT

EXPRESS YOURSELF IN **EDGE** – WRITE TO: LETTERS, **EDGE**, 30 MONMOUTH STREET, BATH BA1 2BW (email: **edge@futurenet.co.uk**)

It is nonsense to suggest that the next generation of videogames will be harder to create. With all this talk of the PlayStation2 having too much power, people are saying game creators will have difficulty filling the power void.

Take your average game designer, producing a 3D model of a car for a racing game. The game is headed for the PlayStation and the car will have up to 200 polygons. Does this designer use 200 polygons to create the model? No. He will use as many as he can, say 2,000. The same for the textures – they will be way too big for the final game.

Then, all those models and textures will have to be cut to size. When they start to develop for the PlayStation2 they can have 2,000 polygons per car. So how many will the designer use? You guessed it – 20,000. I have not met a designer yet who hasn't used the maximum colours, resolution, polygons and anything else to create their masterpiece.

Once the graphics are in place, what about the 3D engines? Surely these have already been written. How many 3D engines do you think Rare has written? A new one for each game? Sorry. Rare has simply modified the same engine.

It's not going to take much to upgrade these to the new hardware platforms. It's not like we are moving to a new dimension, as with the move from 2D to 3D. And one of the attractions of this new hardware is the graphical processors which perform much of the hard work for you.

Emotional content, I hear you cry. How much emotion do you think EA is going to add to its sports sims? None, is the answer. I predict it will churn out the same set of sports sims with better graphics and I have no doubt your mass-market punter will snap them up by the truckload.

Most next-generation games will be rehashes of current games with better graphics, but no new content.

For emotion, look no further than those who brought you emotion on PlayStation: in one word, SquareSoft – the only games creator which will have to work a little harder, but I bet it is relishing the idea. Imagine no difference between cut scenes and the game.

Your average next-generation game is no harder to write than today's. All this talk about trying to fulfil the potential leaves me believing the price of games will return to £45. Next generation means a rise in the cost of gaming. (My figures are by way of illustration only, incidentally.)

Richard Crick,
via email

True, artists will work beyond the capabilities of any given piece of hardware – at least until the target box becomes as powerful as the rendering workstation. But to suggest that the scale of PS2's architecture will not bring with it increased development times is ludicrous – the existence of more code in itself ramps up laborious testing and debugging processes.

Does any coder believe otherwise? Usual address.



Do FPS titles like *QIII:A* demonstrate a lack of imagination? Stuart Murton reckons so

'Publishers need to start supporting hardcore projects, knowing they **can charge more. Gamers need to** reward those efforts. **If we want** good quality we need to **pay for it'**

I do not understand why some of today's games are so cheap. **Edge** readers frequently complain about games being aimed at the mass market, yet it doesn't take much thought to realise that with game prices at a standard £30 to £50, the only way software companies can cash in is to sell more. And the way to sell more is to increase their game's appeal to the mass market.

An alternative way to a financial bounty while catering for the more avid gamer is to increase prices. This summer, I bought the amazing *Grand Prix Legends*, reduced to £20. I have since spent another £150 on a Logitech force-feedback steering wheel so that I can play it.

I have bought many excellent games but none have provided the lasting enjoyment of *GPL*. Clearly, it was not a game for the mass market. This was reflected in its disappointing sales. But what surprises me are its dedicated online followers.

I would be willing to spend more than £300 to play a game such as *GPL*. I suspect many of those fans on the Internet are willing and able to pay the same.

I do feel lucky to have found such a bargain, but I'd prefer to know that the *GPL* developers' efforts were rewarded with commercial success.

Publishers need to start supporting hardcore projects, knowing that they can charge more for them. Gamers need to reward these efforts. Microsoft, the king of pricing, understands this well, with the various versions of *Flight Simulator* – one for the mass market and one for the hardcore fans, with different price tags.

If we want good quality, then we need to start paying for it. It's just like good wine!

Stefan Mytilineos,
via email

I was confused when you revealed news about the PlayStation2 at Devcon, (news, **E**76). The article said that no one would be allowed to refer to the system as PlayStation 2. Instead, it would be termed the next-generation PlayStation: 'whatever it's called, it certainly won't be PlayStation 2', you said. Then in the next issue you suddenly called it PlayStation2!

And where does the faith of **Edge** lie? In one issue, you give reasons why Sega's 'great white hope deserves a place underneath your television', then suddenly the PlayStation2 is 'the mass market platform of choice in waiting'. Will Dolphin be next?

Name withheld,
via email

Sony probably issued the 'it won't be called PlayStation2' directive at Devcon simply because it didn't want the official term to be circulated until the official announcement. It's a weird one.

Regarding **Edge**'s Dreamcast standpoint, the machine does deserve a place under your TV. If you're a hardcore gamer, that is, which is the type of person who reads **Edge**. As for the mass market, that's another matter entirely.

There seems to be a need to compare the videogame and movie industries – when the two are not related ('But Is It Art?', **E**79).

Movies could be termed passive entertainment (you have no control over the action or ending) while games (playing football, computer games) are obviously interactive. Someone crying at a movie does not, therefore, make it interactive.

It is an emotional response to a fixed situation. Similarly, if I watch a boxing match and wince as someone gets a severe beating, that is not interactive.

Games allow freedom to do as you please. The ending may be the same, but only you can make it, not some crummy actor. Because of that, I think game developers will find it a great deal easier if they see the industry they work in as a separate entity. I understand how the comparison can be made, but surely we are all grown-ups and can tell the difference between watching and doing.

By the way, I totally agree with you on 'Console War II' (**E**79) – PlayStation2 will whip the pants off anything in its way.

Chris Marsh,
via email

'Where does the faith of **Edge** lie? In one issue, you give reasons why Sega's 'great **white hope deserves a place** underneath your **TV', then suddenly** PS2 is the mass **market'**

The idea that art is non-interactive is hideously outdated ('But Is It Art?', **E**79).

Hypertext and hypermedia have been around so long that most universities offer courses in them. If you're wondering, hypertext is just one facet of a new breed of artistic offshoots which are all about interactive storytelling.

They're analogous with the MUDs of yesteryear, allowing freeform/non-linear expression and (on a basic level) allowing the reader to tread their own path through the story.

Interactivity is not an obstacle to gaming's artistic acceptance – it is its greatest advantage. Games, films and novels are each unlike other art forms. Each medium has unique strengths and weaknesses. It is the repetitive nature of most games which dulls the emotive edge. If failure was acceptable and the action could continue in a new direction, key moments in games would have more power.

The logistical nightmare is the artistic dilemma within games. How do you marry non-linear stories with multiple paths and varied key moments? We don't want *Wing Commander IX*, do we?

There are also contradictions in your fixation on what is real in games. Yes, the real is unattainable, and games often strive for realism, but how do either of these affect its position as an art form?

You really should take up the issue of immersion. The supposed reality of games exists only to draw the player into the game world, just as extraneous details in a novel flesh out the world for the reader.

The biggest obstacle to any mass acceptance of games as a viable art form is the reticence of the general media to combine words like 'game' and 'playing' with words like 'art'. If games really want to be taken seriously by the outside arts, they need to start moving their vocabulary sideways. They need to start talking about themselves as art before anybody else ever will.

That said, thank you for taking a serious look at the issue (and next time, drop the references to 'Titanic', that *Mortal Kombat Gold* of film).

Alex Hutchinson,
via email

Games, films and novels may each be unlike other art forms, but there is enormous value in looking to other fields and stealing – or 'being inspired by' – the elements that might work in games. *Metal Gear Solid* would not be half the game it is had Konami not used this approach.

As for further mediation, watch this space.

I've finally been seduced into buying a Dreamcast. I had accepted that the DC had no must-have games until *Soul Calibur* turned up.

It really is a landmark game. The attention to detail in graphics, intros and menus is something that only Namco seems to offer regularly.

Three weeks on, and I still have the one DC game. There is none other worth getting at the moment.

On the PS, I await eagerly *GT2*, *ISS Pro Evolution* and *International Track & Field 2*. On the PC, it's obviously *Quake III: Arena* and *Diablo 2*. But the DC? Have I just spent £250 (with extra pad, memory card and RGB lead) on a machine for one game?

I really hope that DC gets some more games of the calibre (pun intended) of Namco's classic before we start getting into PS2 territory, otherwise we could see the end of yet another Sega machine.

Elliot Cheung,
London

Just thought you would like to hear from a satisfied Dreamcast owner for a change.

Having owned and lived through the pain of the Mega CD, the 32X and the Saturn, Sega has finally delivered the goods – with a couple of must-have titles thrown in for good measure.

Soul Calibur is eye-poppingly good for a first wave title.

Despite this, though, I have a funny feeling that, come next year, the DC will still move to the kid's room following a certain launch.

One more thing, concerning video game violence. I'm a father of three boys who have grown up playing games such as *Tekken* and *Quake* without any adverse effects.

Now, one week after I've allowed them to watch WWF on Sky One, I'm taking the youngest one to casualty with a broken forearm, a victim of his brother's slam.

Steve Duguid,
via email

A mother recently contacted **Edge** with tales concerning her sons' habits of acting out *Tekken* moves on each other in real life, resulting in numerous injuries, so maybe you're (relatively) fortunate.

How come your article on the future of hardware ('Console War II', **E**79) was also printed in shite American magazine *Next Gen*?

I bought it to see if that magazine had any new insights and now I want my money back.

When I read it, I was amazed to see the difference between American and British gaming tastes – for example, *Next Gen* awarded *Jet Force Gemini* three stars and *San Francisco Rush* five. I have just finished playing JFG and it was excellent. I think Rare should be applauded for making a game with a squarely British sense of humour. This will be why the dozy Americans didn't like it.

You can't blame the dullards for not appreciating the *Jet Force* team receiving Jim'll Fix It badges from Sir Saville himself at the end.

James Brookes,
via email

Edge and *Next Generation* have the same parent company, The Future Network, and the two magazines have shared editorial for years.

Some time ago, you published my letter berating the lack of gameplay by western developers. Almost two years on, nothing seems to have changed.

I have loved playing games for many years. But an increasing worry to me is the lack of inventiveness from so-called elite game developers. I don't mean wildly original concepts – just the little things, such as the feeling you get from playing the games themselves.

Companies such as Konami, Capcom, Square, Nintendo don't necessarily try to reinvent the wheel but they do at least seem to pack in so many original details that it feels like a new experience.

Why is it that Rare and Dreamworks have managed to succeed in creating excellent FPS titles, even while restricted by ageing consoles, where the PC fraternity (apart from Valve) has failed? It seems content with churning out bland copies of the last big hit. Take the *Quake* series. Such a huge success. Technically it is superb, but surely there is room for real gameplay innovation, especially in deathmatch.

So much could be done with the FPS genre, but no one seems willing to take the risk. Or is it a lack of imagination? The only people who can do something about that are the consumers. Then again, *Quake III* will be the biggest-selling game of the year, so why don't I just move to Japan?

Stuart Murton,
via email

The attitude of the casual gamer could well seal the fate of Sega and Nintendo.

The PlayStation has been a good machine, but it has turned a proportion of the gaming community into blinkered Sony zealots. There are times when the level of hypocrisy astounds me.

Many multiformat magazines unfairly cited the linear nature of *House of the Dead 2* as a reason not to buy the game, having heaped praise on *Time Crisis* when it was released on the PS. *HOTD2* offers multiple routes – an aspect seldom mentioned.

A great number of people will pump pounds into arcade *HOTD2* and *Virtua Striker* (and even proclaim them as favourite games) but do not care that these titles are available for the Dreamcast.

The current all-format chart tells a sad tale. *Soul Calibur* charts one week and disappears the next, while *Tomorrow Never Dies*, *Tomb Raider 4* and *FIFA 2000* sell by the bucketload.

Sega must promote new conversions with more vigour.

I bet a huge number of the PS-owning public have chosen the machine based purely on the availability of cheap pirated software. The future of such an excellent machine (DC) should not be decided by this. But I'm sure it will play a significant part.

The quality of recent DC titles has been incredible (*Zombie Revenge*, *Virtua Striker 2000*, *Virtual On 2*).

These add to grade-A titles such as *VF3tb*, *Powerstone*, *Soul Calibur*, *HOTD2* and *Airforce Delta* (to a lesser degree). But these are seldom seen running in shops.

This year holds the promise of *Crazy Taxi*, *Shenmue*, *F355* and many other Sega, Capcom, Konami and Namco titles.

Of course, PS2 will be great, but I fear that the excellent titles (from Namco and SquareSoft) will be outnumbered by limp offerings on PS1. An ideal future would see excellent games from Sega, Sony and Nintendo reviewed with equality and at least three major formats: DC, PS2 and Dolphin. And you can always own more than one machine!

Paul Barnett,
via email

A year on I thought I'd just dust off and replay *Ocarina of Time*. I finished it last night – and cried like a baby all the way through the end sequence. Is this normal?

Christian Cecchi,
via email

Freak! Run for the hills!

'If games want to be taken seriously by the outside arts, **they need to start moving their vocabulary – start** talking about **themselves** as art, before anybody **else will'**



Next month:
Shenmue in the eyes of creator Yu Suzuki







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